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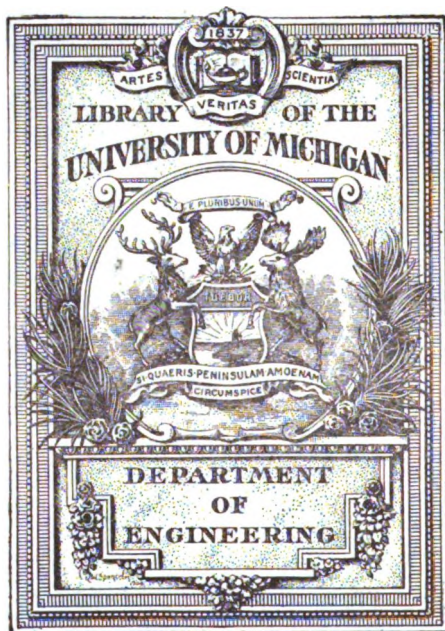
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MINUTES OF PROCEEDINGS  
OF  
THE INSTITUTION  
OF  
CIVIL ENGINEERS.



SUBJECT INDEX:  
VOLUMES I. TO LVIII.

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SESSIONS 1837 to 1878-79.

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## PREFACE.

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THIS Subject-matter Index deals with the whole of the publications of the Institution down to the end of the session 1878-79, and includes, besides the fifty-eight 8vo. volumes of Minutes of Proceedings, three 4to. volumes of Transactions printed in the early days of the society, or in all the contents of sixty-one volumes. It differs materially from the two General Indexes to the Minutes of Proceedings issued in 1865 and in 1871, which referred respectively to volumes I. to XX. and volumes XXI. to XXX. of that series, inasmuch as in those indexes the names of the Authors of Papers and of those who took part in the discussions formed principal entries, and were embraced in one alphabet with the subjects. This is purely a Subject Index, the names of authors and of speakers being treated as subordinate. It is essentially analytical, and the alphabetical arrangement has been combined with a certain amount of classification, thereby affording facility for consultation, by which it is hoped any given subject of inquiry may be reached with the least expenditure of time and trouble. The principle will be understood from a few examples. General references and historical notices are first disposed of, and then particular branches of the subject are taken up. Each large subject is subdivided under leading headings, in each of which the title of the main subject is repeated. In this way, extensive subdivision has been practised,

where needful, whilst the main subject is, by repetition, kept steadily before the eye. "Artillery," for instance, carries thirteen subheads, and it will only be necessary to glance over the several subheads, for each of which the word Artillery is repeated, to discover immediately the section in which the subject of search is to be found. "Breakwaters" may also be quoted, and in this case, as well as in others, after the general entries, there is an alphabet of places referring to special works. For "Bridges" there are twenty-nine entries, in which every kind or class of bridge, or individual bridge, described in the Proceedings, is plainly distinguished. "Permanent way" and "Railways" have been similarly treated, and occupy sixteen and thirty-two pages respectively. Where it appeared necessary, the entries have been repeated under different headings, but where there were numerous entries which might have been placed under the same heading, the use of cross-references has been freely adopted, so as to comprehend as far as possible every matter of engineering interest that has arisen either in the Papers or in the discussions during the period of forty-two years.

In respect to the type employed, it will be noticed that headings are printed in capitals, and the word referred to in cross-references in italics.

THE INSTITUTION OF CIVIL ENGINEERS,  
25, GREAT GEORGE STREET, WESTMINSTER, S.W.  
October 1, 1881.

# TRANSACTIONS

AND

## MINUTES OF PROCEEDINGS

OF

## THE INSTITUTION OF CIVIL ENGINEERS.

### SUBJECT INDEX.

TRANSACTIONS, VOLS. I., II., AND III.  
MINUTES OF PROCEEDINGS, VOLS. I. TO LVIII.

*The Roman Letters refer to the Volume; the Arabic Numerals to the Page.  
The letter (T.) refers to the three 4to volumes of Transactions; the letter  
(S.) to the Selected Papers in recent volumes of the Minutes of Proceedings.  
The exact Titles of all Original Communications or Papers, whether read and  
discussed at the Ordinary Meetings or only printed in the 'Proceedings,'  
are given between inverted commas. Abstracted Papers are not so indicated.*

**ABATTOIRS.** "Description of the Abattoirs of Paria." R. B. Grantham.  
viii. 66. (1 plate.)—Discussion: E. Chadwick, viii. 74; Prof. Owen, 75,  
79; J. Leslie, 77; C. May, 77, 81; W. G. Armstrong, 77; J. A. Ransome,  
78; C. Fowler, 79; Mr. Elliott, 79; R. B. Grantham, 80, 81.

**ACCELEROMETER and ACCELEROGRAPH.** See *Explosive Agents*.

**ACCIDENTS** in mines. See *Coal Mines; Mines*.

— on railways. See *Railway Accidents*.

— in steam boilers. See *Steam Boilers, Explosions of*.

**ACCUMULATORS.** See *Hydraulic Machinery*.

**ADDRESSES OF PRESIDENTS:—**

ALPHABETICALLY.

Bateman, J. F., lii., 2.  
Bidder, G. P., xix. 214.  
Cubitt, Sir W., ix. 133; xi. 147.  
Field, J., vii. 32; viii. 28; ix. 118.  
Fowler, J., xxv. 203.  
Gregory, C. H., xxvii. 180.  
Harrison, T. E., xxxvii. 225.  
Hawkshaw, J., xxi. 178.  
Hawkeley, T., xxxiii. 333.  
Locke, J., xvii. 128.  
M'Clean, J. R., xxiii. 151.

Rendel, J. M., xi. 148; xiii. 185.  
Rennie, Sir J., iv. 23; v. 19; vi. 19;  
vii. 27.  
Simpson, J., xiii. 190.  
Stephenson, G. R., xlv. 2.  
Stephenson, R., xv. 123, 456.  
Telford, T. (T.), i., p. xxn.  
Vignoles, C. B., xxix. 272.  
Walker, J., i. (1839) 15, (1840) 15,  
(1841) 23; ii. (1842) 21, (1843) 22;  
iii. 25; iv. 20.

B

## Addresses of Presidents—continued.

## CHRONOLOGICALLY.

- |   |                                      |
|---|--------------------------------------|
| 1820-34 T. Telford, (T.), p. xxii.  | 1854-56 J. Simpson, xiii. 190.       |
| 1835-45 J. Walker, i. (1839) 15, (1840) 15, (1841) 23; ii. (1842) 21, (1843) 22; iii. 25; iv. 20. | 1856-58 R. Stephenson, xv. 123, 456. |
| 1845-48 Sir J. Rennie, iv. 23; v. 19; vi. 19; vii. 27.  | 1858-60 J. Locke, xvii. 128.         |
| 1848-50 J. Field, vii. 32; viii. 28; ix. 118.   | 1860-62 G. P. Bidder, xix. 214.      |
| 1850-52 Sir W. Cubitt, ix. 133; xi. 147.  | 1862-64 J. Hawkshaw, xxi. 173.       |
| 1852-54 J. M. Rendel, xi. 148; xiii. 185.   | 1864-66 J. R. McClean, xxiii. 151.   |
|   | 1866-68 J. Fowler, xxv. 203.         |
|   | 1868-70 C. H. Gregory, xxvii. 180.   |
|   | 1870-72 C. B. Vignoles, xxix. 272.   |
|   | 1872-74 T. Hawksley, xxxiii. 333.    |
|   | 1874-76 T. E. Harrison, xxxvii. 225. |
|   | 1876-78 G. R. Stephenson, xliv. 2.   |
|   | 1878-80 J. F. Bateman, lii. 2.       |

**ÆROPHORE**, the Rouquayral-Denayrouze (air for respiration and for lamps).  
A. Habets, xlv. 325.

**AGRICULTURE:—**

- Cultivated land and meadow land, in Europe. J. D. Barry, xxvii. 519.  
Cultivation of the Albufera of Alcudia, Majorca. H. R. Waring, lii. 245.  
Ploughing by electricity. H. Fontaine, lvii. 419.  
Steam cultivation in agriculture. J. Head, xlviii. 87.  
See *Drainage of Land*; *Irrigation*; *Sewage irrigation*.

**AGRICULTURAL (OR PORTABLE) ENGINES AND MACHINES:—**

- Agricultural locomotives; or self-moving engines. J. Head, xxxvi. 64;  
Ransome's, 65; Burrell's, 66; Aveling and Porter's, 67; Fowler and Co.'s, 69.  
Combustion of coal in portable engines. W. Exall, xvi. 34.  
Performances of agricultural engines. F. J. Bramwell, xxiii. 60.  
Portable engines at Cardiff: performance of boilers. D. K. Clark, xlv. 263;  
lii. 148;—F. J. Bramwell, lii. 151; table, 152.  
Portable steam boiler: results of performance. F. J. Bramwell, lii. 154;  
balance sheet, for performance, 155.  
Results of experiments on agricultural machines at the Exhibition of  
Agricultural Machinery of Turin in 1876, l. 266.  
Steam-ploughing engines, J. Fowler and Co.'s. J. Head, xxxvi. 69.  
Straw-burning engines. J. Head, xlviii. 78.

**AIR:—**

- Air and oxygen dissolved in water and snow. R. Adie, iv. 326.  
Coefficient for expansion of air under atmospheric pressure. D. Mendéléeff  
and N. Kaiander, xlv. 300.  
Composition and properties of air. G. J. Morrison, xlv. 19.  
Elasticity of air under feeble pressure. E. H. Amagat, xlv. 363.  
Impurities in air:—Carbonic acid: J. Faraday, ii. (1843), 185; G. J.  
Morrison, xlv. 21, 22. Absorption of carbonic acid by walls: Dr. Letheby,  
58; and by lime, 59. Respired air: Dr. Letheby, 56. Air in public  
buildings, 57; T. Sopwith, Jun., 62. Eudiometer: J. Richardson,  
xii. 273, 281.  
See *Temperature*; *Cooling of air*, see *Ventilation*; *Warming of air*, see  
*Warming*.

## AIR, FLOW OF:—

Expansion and motion of compressed air through a tube: Dr. C. W. Siemens, xliii. 138, 156; W. H. Preece, 144; M. Sauvé, 145; Prof. W. C. Unwin, 151, 266, 274; F. J. Bramwell, 160; E. A. Cowper, 166; J. Imray, 169; R. Sabine, 177. Dr. Brix's experiments: Dr. Stephan, 184.

Experimental researches on the discharge of air under great pressures. G. Zeuner, xxxix. 375.

Flow of air through pipes. E. Cottam, i. (1837) 43.

— Hawksley's formula. T. Hawksley, iv. 281; xxxiii. 55;—J. M. Heppel, vi. 329.

— through orifices of various forms. A. Fliegner, xxxix. 370; liii. 295; lv. 379.

"Law which governs the discharge of elastic fluids under pressure through short tubes or orifices." W. Froude, vi. 356. (4 plates.)—Discussion: W. Froude, vi. 356, 396; G. P. Bidder, 385, 386, 389, 391; W. Harding, 385, 392; J. S. Russell, 386, 387; I. K. Brunel, 386, 390, 391; W. Gravatt, 387.

Loss of pressure by flow of compressed air in pipes: T. Sopwith, Jun., xxiii. 281.

Resistance of air in motion through tunnels and other passages and pipes: G. J. Morrison, xlv. 28; E. A. Cowper, 83; D. K. Clark, 90.

— to the movement of bodies through it: J. Farey, v. 289.

— to projectiles: B. Britten, xix. 355; G. P. Bidder, 452.

See *Pneumatic Despatch*.

## AIR, COMPRESSED, AS A MOTIVE POWER:—

Compressed-air as a motive power. P. Banneux, liv. 330.

— *versus* horses. M. Mékaraki, xlv. 256; liv. 332.

— *versus* water. H. Robinson, xlix. 25; Dr. C. W. Siemens, 32; J. Mackenzie, 40.

— Efficiency of: H. Robinson, xlix. 17. By Messrs. Eastons and Anderson, Erith, 20. At Dolcoath mine, 21. By Mr. Daniel at Powell Duffryn collieries, 25, 61; tables, 29; Dr. Siemens, 32; J. Mackenzie, 40; R. H. Tweddell, 42.

— Performance of, applied to the transmission of mechanical work (work of compressed air). P. Piccard, xlv. 273.

— Weight, volume, and work of. R. S. Culley and R. Sabine, xliii. 67; table, 91.

Work done in compressing air: R. S. Culley and R. Sabine, xliii. 72; Dr. C. W. Siemens, 136, 271. Diagrams of compression, 72, 137: Prof. W. C. Unwin, 272.

## AIR, EXPANDED OR EXHAUSTED, MOTIVE POWER BY:—

Pneumatic crane by Mr. Hague. H. Robinson, xlix. 21.

Weight, volume, and work of atmospheric air expanded into a vacuum: table. R. S. Culley and R. Sabine, xliii. 92.

Work done in rarefying air: R. S. Culley and R. Sabine, xliii. 74, 271.

See *Coal-mining*; *Cranes* (Pneumatic); *Docks*; *Foundations*, Cylindrical; *Hoists* and *Lifts*; *Locomotives*, Compressed-air; *Machine-tools*; *Piles* and *Pile-driving*; *Pneumatic Despatch*; *Power*, Transmission of; *Rock-drills*; *Tramways*, Mechanical power on; *Railways*, atmospheric.

**AIR-BLAST** :—Korting injector as an air-blast. A. Scheurer-Kestner, lv. 403.  
See *Blast furnaces*, blast for.

**AIR-COMPRESSORS** :—

Air-compressing machinery, on the arrangement of. H. Mativa, xlix. 332.  
Air compressor, with water pistons. P. Hanrez, lviii. 410.  
— Trollhättan Falls. C. A. Ångström, xlii. 274. .  
— and rock-boring machines. (Rock drills). H. Mativa, lv. 411.  
Direct-acting steam-pumps, St. Gothard tunnel: D. K. Clark, xlii. 238;  
Dr. Colladon's pumps at St. Gothard tunnel: 239, 240;—I. 240.  
Dry-air and moist-air compression pumps, for the production of cold. A. C. Kirk, xxxvii. 249, 258, 261.  
Gas compressing pump: Portslade Gas Company. F. J. Bramwell, xxiii. 302.  
Hydraulic-ram compressor, by M. Sommeiller, at Mont Cenis tunnel: T. Sopwith, Jun., xxiii. 265, 277, 312; F. J. Bramwell, 301.  
Plunger-pumps, with Woolf engines, for the pneumatic despatch, by Eastons and Anderson. R. S. Culley and R. Sabine, xliii. 63.  
Richter's vertical air compressor, lvii. 405.  
Water-pump compressor, by M. Sommeiller, Mont Cenis tunnel: T. Sopwith, Jun., xxiii. 266, 280; F. J. Bramwell, 301;—T. Sopwith, Jun., xxxvi. 9.  
See *Rock-Drills*.

**AIR-EXHAUSTER**. Three-cylinder air-pumps for the siphons, middle-level drainage, at St. Germaine. J. Hawkshaw, xxii. 506.

**AIR, HEATED, ENGINES** :

Historical notice. B. Cheverton, xii. 312; G. Crispe, 325.  
Caloric engine by A. and F. Brown. J. N. Douglass, lvii. 92, 93.  
— "On the caloric engine." C. Manby, xii. 558.  
— "On the principle of the caloric or heated-air engine." J. Leslie, xii. 563.  
• "Conversion of heat into mechanical effect." C. W. Siemens, xii. 571.—  
Discussion on the three preceding Papers: C. Manby, xii. 591; C. W. Siemens, 591, 598; T. Hawksley, 592; W. Pole, 593; W. G. Armstrong, 597; E. Woods, 597; C. May, 597; E. A. Cowper, 598; D. K. Clark, 598; J. Stirling, 599.  
Experiments by Sir I. Brunel on hot air and condensed carbonic-acid gas as motive powers. I. K. Brunel, ix. 199, 200; A. Gordon, 200, 201, 202; R. Stephenson, 200.  
Fumific impeller, by A. Gordon, ix. 202. (1 plate.)  
Function of the regenerator. B. Cheverton, xii. 321; G. Crispe, 325, 329; G. Gurney, 338; G. P. Bidder, 347, 350; J. Spiller, 348; Dr. M. Faraday, 348; I. K. Brunel, 349, 350; T. Hawksley, 349; Capt. Fitzroy, R.N., 350; F. Braithwaite, 351; W. G. Armstrong, 351, 597; C. Manby, 558; J. Leslie, 563; O. W. Siemens, 591; T. Hawksley, 592; W. Pole, 595.  
Heated-air engines *versus* steam engines: table showing comparative performances: C. W. Siemens, xii. 588. Tables of comparative efficiencies: Prof. H. Fritz, xliii. 400.  
Performance and efficiency of several heated-air engines. Prof. H. Fritz, xliii. 400.



**Air, heated, engines—continued.**

Theoretically perfect heated-air engines; W. J. M. Rankine, xii. 331;  
C. W. Siemens, 346, 588. General formula: C. W. Siemens, xii. 579.

Theory of closed air-engines. Dr. A. Slaby, lvi. 869.

"Use of heated air as a motive power." B. Cheverton, xii. 312.

— "Remarks on the use of." Sir G. Cayley, xii. 332.—Discussion on the two preceding Papers: G. Gurney, xii. 332, 338; H. M. Lefroy, 339; W. G. Armstrong, 344, 351; G. Rennie, 345; C. W. Siemens, 345; G. P. Bidder, 347, 350; J. Spiller, 347; Dr. M. Faraday, 348; I. K. Brunel, 349, 350; T. Hawksley, 349; Capt. Fitzroy, R.N., 350; F. Braithwaite, 351.

Cayley. "Description of Sir George Cayley's hot-air engine." W. W. Poingdestre, ix. 194. (1 plate).—Discussion: A. Gordon, ix. 197, 200, 201; G. Gurney, 198; I. K. Brunel, 199, 200; R. Stephenson, 200.

— Sir George Cayley's engine. A. Gordon, iv. 359;—Sir G. Cayley, xii. 335; G. Gurney, 338; G. Rennie, 345.

Ericsson's hot-air engine. G. Crispe, xii. 327; Sir G. Cayley, 332; C. W. Siemens, 345, 581, 598; G. P. Bidder, 347; J. Spiller, 347; F. Braithwaite, 351; C. Manby, 558.

Lefroy's proposed heated-air engine. H. M. Lefroy, xii. 343.

Napier and Rankine's heated-air engine, by W. J. M. Rankine, xii. 332.

Parkinson and Crosley's heated-air engine. B. Cheverton, xii. 326.

Stirling. "Description of Stirling's improved air-engine." J. Stirling, iv. 348. (1 plate).—Discussion: J. Stirling, iv. 355, 356, 357, 358, 359, 360, 361; J. Walker, 356; G. Cottam, 356; A. Gordon, 356, 359; R. Stephenson, 358; J. Smith (Deanston), 358; Sir G. Cayley, 358; J. Lealie, 358; J. Field, 357, 360; J. Jeffreys, 360.

— Stirling's air engine: G. Crispe, xii. 325; J. Leslie, 563, 567. Performance, 570. Efficiency: C. W. Siemens, 581; J. Stirling, 599.

**ALCOHOL:—**

Composition and heating power of alcohol. O. C. D. Ross, xl. 161.

Oxidation of alcohols by electrolysis. A. Renard, lviii. 429.

**ALLOYS**, fusible, on the expansion and specific heat of. W. Spring, xlv. 320.

**AMBER MINE**, at Nortyken, in Samland, Prussia. H. Kühn, xl. 342.

**AMMONIA**. Use of ammonia as manure in soils: J. Parkes, ii. (1842), 68; J. Bethell, 68; J. J. Hawkins, 68.

Sulphate of ammonia from gasworks: A. A. Croll, iii. 296; G. Lowe, 301; Prof. Graham, 302; J. Bethell, 303.

**ANEMOMETER:—**

Biram's anemometer. C. Manby, lviii. 137;—H. Mackworth, xii. 300.

Differential anemometer. M. Arson, xlvii. 406.

**ANEROIDS**. See *Barometers*.

**ANIMAL POWER**. See *Horses*, Power of; *Labour*, Manual.

**ANTHRACITE**. See *Coal*, Anthracite (p. 53).

**ANTS, WHITE**. See *Timber*—Decay; *Timber*—Preservation.

## AQUEDUCTS:—

- Inclination of aqueducts. R. Rawlinson, C.B., xxv. 496; J. Murray, 498; W. Atkinson, 499.
- Bristol waterworks wrought-iron tubular aqueducts. J. Simpson, xiv. 218.
- France. Aqueduct for supply of Eastern canal of France. W. B. Dawson, lv. 215, 216, 223.
- Henares Canal aqueduct, over the Arroyo Tejada. G. Higgin, xxvii. 495.
- Lisbon. "Description of the great aqueduct at Lisbon over the valley of the Alcantara." S. Clegg, Jun., i. (1841) 138.
- London. Wrought-iron sewer-aqueduct over the Metropolitan railway. J. W. Bazalgette, xxiv. 297.
- Naples. The Ponte Maddalona, aqueduct of Caserta, Naples. A. Poynter, xiv. 234; W. Pole, 234.
- Narni. The aqueduct of Narni and its works of restoration. B. Fabri, xli. 246.
- Nismes, or Pont du Gard. "Description of the Pont du Gard." G. Rennie, xiv. 236.
- Paris. Aqueducts for the water supply of Paris. G. R. Burnell, xxv. 483, 484.
- Roquefavour. "Description of the bridge aqueduct of Roquefavour on the line of the canal of Marseilles." G. Rennie, xiv. 190, 204; R. W. Mylne, 213.—Discussion: W. Pole, xiv. 202, 233, 234; G. Rennie, 204, 235; G. P. Bidder, 208; J. W. Papworth, 209; J. Hawkshaw, 210; S. Clegg, Jun., 211; R. W. Mylne, 211, 218; J. Murray, 215; J. Simpson, 218; C. Manby, 223; A. Poynter, 234; Mr. Pentland, 235.
- "Description of the bridge aqueduct on the line of the canal of Marseilles." M. Mont Richer (translated by C. Manby), xiv. 223.
- Principal dimensions of aqueduct. G. Wilson, li. 221.
- Washington. Iron bridge-aqueduct at Washington, U.S., by Capt. Meiggs. Z. Colburn, xxii. 540.

## ARCHES:—

- Historical notice. G. Rennie, iii. 109, 111; T. Page, 111; Col. W. M. Leake, 113.
- Curve. True curve of equilibrium in an arch rib. G. H. Phipps, xxxi. 134; J. M. Heppel, 139; W. Airy, 141; R. P. Brereton, 155.
- of pressure for an arch. W. Bell, xxxi. 143.
- "— of equilibrium for a rigid arch under vertical forces." G. Fuller, (S.) xl. 143.
- \* Expansion of arches." G. Rennie, (T.) iii. 201. G. Rennie, i. (1840), 4.
- French scales for depth of keystone. R. Crawford, xxii. 15.
- Friction of arches, G. Rennie, iii. 108.
- Graphical treatment of arched ribs of constant section. T. Hubl, liii. 299.
- Spans. Most suitable spans for arches. Capt. W. S. Mooroom, x. 234, 238; R. Stephenson, 237; C. H. Gregory, 301; J. Hawkshaw, 301.
- Stability. "On the stability of arches, with practical methods for determining, according to the pressures to which they will be subjected, the best form of section or variable depth of voussoir, for any given intrados or extrados." G. Snell, v. 439. (11 plates.)—Discussion: Mr. Stewart, v. 464; G. Snell, 464, 465, 466; R. Stephenson, 464; Gen. Pasley, 465; J. S. Russell, 466.
- The conditions of the stability of the arch of the Pont-y-tu Pridd. G. Snell, v. 468. (2 plates.)

**Arches—continued.**

**Stability.** On the construction of arched bridges possessing the maximum of stability. Y. Villarceaux, lvi. 302.

— **Stability of arches.** J. Gaudard, lviii. 326.

**Strains.** Investigation of the strains produced in an iron arch by contraction or expansion of the metal. W. Airy, xxxiii. 141.

**Stress in arches of bridges.** Prof. F. Jenkin, xxii. 568; E. A. Cowper, 569; G. H. Phipps, 571;—E. A. Cowper, xxvii. 99.

**Stresses.** "On the stresses of rigid arches, continuous beams, and curved structures." W. Bell, xxxiii. 58. (2 plates.)—Discussion: J. Gaudard, xxxiii. 127; Prof. E. Collignon, 129; Prof. J. Clerk Maxwell, 130; L. E. Fletcher, 131; Prof. F. Jenkin, 134; G. H. Phipps, 134; W. Airy, 140; W. H. Bidder, 142; J. M. Heppel, 150; Major J. Browne, B.E., 151; W. C. Unwin, 153; W. Bell, 157.

**Theory of the arch.** G. Rennie, iii. 107.

— "On the theory and details of construction of metal and timber arches." J. Gaudard (translated by W. Pole), xxxi. 73. (2 plates.)—Discussion: B. B. Stoney, xxxi. 129; Prof. W. J. M. Rankine, 132; G. H. Phipps, 133; J. M. Heppel, 139; W. Airy, 141; W. Bell, 143; B. Baker, 151; G. J. Morrison, 155; R. P. Brereton, 155; W. H. Barlow, 163; Dr. W. Pole, 166; J. Gaudard, 167.

**Thrust.** "On the existence (practically) of the line of equal horizontal thrust in arches, and the mode of determining it by geometrical construction." W. H. Barlow, v. 162. (6 plates.)

— "On the geometrical construction of the curve of equal horizontal thrust." W. H. Barlow, v. 167.—Discussion on the two preceding Papers: W. Cubitt, V.P., v. 172, 177; T. Sopwith, 173; I. K. Brunel, 173, 175; W. H. Barlow, 173, 176, 177, 180, 181; A. Pellatt, 174; W. S. Inman, 174; R. Stephenson, 174, 176, 177; G. P. Bidder, 175, 176, 177; G. Snell, 178, 181.

**Waterproofing arches.** J. Smith (Deanston), ii. (1842), 143; F. Braithwaite, 145; J. Combe, 145.

See *Bridges*; *Centering*.

**ARCHES—MATERIALS:—**

**Brick.** "Experiments on the strength of brick and tile arches." T. Cubitt, i. (1841), 136.

**Iron.** "Account of experiments on elliptical cast-iron arches." T. F. Chappé, xviii. 349.—Discussion: W. H. Barlow, xviii. 356; W. Fairbairn, 356; G. Rennie, 356; J. A. Ransome, 358; J. F. Bramwell, 358, 360; T. F. Chappé, 359, 362; H. Maudslay, 359; R. Stephenson, 360; J. Locke, 361; J. Hawkshaw, 361; G. W. Hemans, 362.

— **Timber versus iron, under compression, for arches.** R. P. Brereton, xxxi. 161.

**Stone.** "A practical method of forming the stones of an elliptic arch." W. Bald, i. (1837), 45.

— **Thickness and form of the arches of stone bridges.** G. Tolkmitt, lv. 344.

**Timber.** Laminated timber arches: Dinting Vale Viaduct. A. S. Jee, v. 216.

— Newcastle and North Shields railway. B. Green, v. 219. See *Viaduct*. Dinting Vale.

**ARCHITECTURAL DECORATION**, new material for: "Cannabic" composition. B. Albano, iii. 70.

**ARMS (small)**. See *Fire-arms*.

**ARSENIC**. Arsenical ores at Freiberg. L. Grand, xlii. 348, 356.

**ARTESIAN WELLS**. See *Wells*.

**ARTILLERY**—general references:—

Historical notice. C. H. Gregory, xix. 344; xxvii. 192.—Admiral Selwyn, lvi. 223; G. A. Canet, 228; W. H. Barlow, 244.

"Construction of artillery, and other vessels, to resist great internal pressure."

J. A. Longridge, xix. 283.—Discussion: G. P. Bidder, xix. 338, 400, 421, 448; J. A. Longridge, 338, 370, 433; A. Longsdon, 343; C. H. Gregory, 344; Capt. Blakely, R.A., 343, 371; B. Britten, 349; Gen. Sir J. F. Burgoyne, 356; J. Anderson, 357; W. Clay, 359; C. B. Vignoles, 360; J. C. Haddan, 361; F. J. Bramwell, 363; Capt. Scott, R.N., 366; Capt. Boxer, R.A., 368; Sir C. Fox, 371; F. A. Abel, 372; E. A. Cowper, 373; W. Strode, 376; Capt. Jervia, R.A., 376; C. W. Lancaster, 376; C. W. Siemens, 378; H. Conybeare, 380, 400; Gen. Anstruther, 394; S. Pearson, 394; J. Whitworth, 396, 400, 406, 422, 423; Capt. Wheatley, 400; Capt. Moorsom, 400; Gen. Hay, 401; Col. E. Wilmot, R.A., 403, 422; Sir W. G. Armstrong, 407, 423; J. Locke, 421; Col. Tulloh, 423; W. B. Adams, 428.

—"On the construction of heavy artillery, with reference to economy of the mechanical forces engaged." B. Britten, xxxiv. 187. (1 plate.)—Discussion: Captain Maitland, R.A., xxxiv. 238; Lieut. C. Jones, R.A., 240; Col. Owen, R.A., 245; Capt. Dawson, R.N., 250, 261; P. M. Parsons, 256, 279; S. Rendel, 261; Capt. Simpson, U.S.N., 262; J. Imray, 271; C. W. Lancaster, 273; J. C. Haddan, 276; Major Palliser, 276; J. A. Longridge, 279; Capt. T. B. Heathorn, R.A., 282; C. H. Gregory, 283; Lieut.-Col. A. Strange, 286; Capt. J. Selwyn, R.N., 287; G. H. Phipps, 288; K. H. Cornish, 288; Vice-Admiral E. P. Halsted, 289; C. M. Poole, 289; B. Britten, 290.

—"On the construction of heavy ordnance." J. A. Longridge, lvi. 171.—Discussion: J. A. Longridge, lvi. 201, 205, 244, 258; Col. J. D. Shakespear, 202, 204, 251; Admiral Sir Cooper Key, 203; Gen. Sir H. Lefroy, 204; Dr. C. W. Siemens, 207, 212, 254; S. C. Homersham, 211; Dr. Hopkinson, 212; J. L. Haddan, 213; Commander W. Dawson, R.N., 217; Admiral Selwyn, 222; Capt. Noble, 225; G. A. Canet, 226; J. Imray, 232; P. M. Parsons, 235; E. A. Cowper, 239; Capt. R. A. E. Scott, R.N., 241; W. H. Barlow, 244, 251; R. Wilson, 256.

**ARTILLERY**—BRASS AND BRONZE GUNS:—

Brass guns: Col. E. Wilmot, R.A., xix. 406; proof, 406; J. Whitworth, 406.

Bronze guns. Rosset's improvements in the manufacture of, xliii. 417.

— manufacture of. Col. A. S. Lavroff, xliii. 418.

Spanish compressed bronze cannons, lvi. 391.

**ARTILLERY**—CAST-IRON GUNS:—

Cast-iron guns, United States. J. Imray, lvi. 232, 234; Capt. R. A. E. Scott, R.N., 242.

— Excellence of. J. Imray, xxxiv. 271; lvi. 233, 234.

Hollow-cast *versus* solid-cast guns. F. J. Bramwell, xix. 363; Capt. Scott,

**Artillery—Cast-iron guns—continued.**

R.N., 367; Capt. Blakely, R.A., 371; E. A. Cowper, 375; H. Conybeare, 384, 385, 386, 388; J. A. Longridge, 440;—Col. Adair, xx. 414;—J. Bourne, xxvi. 168, 169.

Official report on Mr. B. Britten's rifled cast-iron service guns, xxxiv. 233.

Proofs of cast-iron guns:—In the United States: H. Conybeare, xix. 384, 386, 387. Spanish 32-pounder: Col. E. Wilmot, R.A., 404. American shell gun, 404. English 32-pounder, 405.

Range of 15-inch American gun. Capt. Hamilton, xxvi. 218.

Rifled cast-iron guns. J. A. Longridge, xix. 291; B. Britten, 349; J. C. Haddan, 361; Capt. Scott, R.N., 366; Capt. Boxer, R.A., 370; W. Cony-382, 388; Col. E. Wilmot, 406;—Commander R. A. E. Scott, R.N., xx. 427.

Rodman. Smooth-bore American Rodman gun. Col. Adair, xx. 414; H. Conybeare, 469;—J. Bourne, xxvi. 169.

—Rodman's gun, and other American cast-iron guns; tensile strength of the metal. Z. Colburn, xxii. 543.

Tables of dimensions and performance of cast-iron service guns, rifled, and smooth bore. B. Britten, xix. 350, 354.

**ARTILLERY—COMPOSITE GUNS:—**

Composite guns *versus* solid-cast guns. Sir C. Fox, xix. 371; F. A. Abel, 372.

Bands. Guns constructed with corrugated bands of steel. C. W. Siemens, xix. 378.

Coil. Wrought-iron welded coil, screwed on a steel tube. S. Pearson, xix. 394.

—Guns constructed with coiled wire. J. A. Longridge, xix. 296, 446; J. Anderson, 357; F. J. Bramwell, 365; E. A. Cowper, 375; Col. E. Wilmot, R.A., 403; G. P. Bidder, 448;—J. A. Longridge, xx. 501;—J. Bourne, xxvi. 168.—J. A. Longridge, lvi. 194, 202, 205, 244; Col. J. D. Shakespeare, 203; Admiral Sir Cooper Key, 203; Gen. Sir H. Lefroy, 205; Dr. C. W. Siemens, 209; Commander W. Dawson, 218; Admiral Selwyn, 222; Capt. Noble, 226; Capt. R. A. E. Scott, R.N., 241; W. H. Barlow, 244.

—Guns constructed with screw-form coils on a cast-iron tube, by Prof. D. Treadwell. C. W. Lancaster, xix. 376.

—Guns constructed with coiled silk or cord. J. Bourne, xxvi. 168.

—Guns constructed of coiled wrought-iron cylinders. Sir W. G. Armstrong, xx. 471; T. Aston, 497; J. A. Longridge, 500.

—Shrinkage of coils, rules for: Sir W. G. Armstrong and Co.'s, lvi. 176.

—Coiled-wire guns *versus* solid guns. Dr. C. W. Siemens, lvi. 210; P. M. Parsons, 236.

—Coiled-wire guns, in France. G. A. Canet, lvi. 231.

Cylinders. Captain Blakeley's gun, constructed of concentric cylinders. J. A. Longridge, xix. 304; C. H. Gregory, 345; Capt. Blakely, 348; Col. E. Wilmot, 403.

Paper-lined. Non-conducting paper-lined gun. J. L. Haddan, lvi. 214.

Tubes. Guns constructed of welded spiral tubes. Sir W. G. Armstrong, xix. 413, 419.

—Cast-iron jacket on a steel tube. P. M. Parsons, lvi. 239.

Artillery—composite guns—*continued*.

Washers. Guns constructed with plate-iron washers, by Mr. Ericsson. J. Bourne, xxvi. 168.

ARTILLERY—WROUGHT-IRON GUNS AND STEEL-GUNS :—

Breech-loading guns, objection to. Col. J. D. Shakespear, lvi. 204.

Muzzle-loading guns. Sir W. G. Armstrong, xx. 478; projectiles, 478; T. Aston, 498.

Solid homogeneous-iron rifled gun. J. Whitworth, xix. 396, 398, 423, 425; —T. Aston, xx. 497; G. P. Bidder, 508.

Strength of iron and steel for guns. G. A. Canet, lvi. 228.

Table of relative merits and demerits of guns. E. A. Cowper, xix. 374.

Armstrong guns. Dimensions, quantities, and performance of the Armstrong gun. B. Britten, xix. 354; H. Conybeare, 392; Sir W. G. Armstrong, 419; 420; Capt. Noble, R.A., 421;—Sir W. G. Armstrong, xx. 486.

Broadwell gas-ring for breech-loading guns. J. Vavasseur, xl. 131.

Fraser gun. Woolwich system of construction. J. A. Longridge, lvi. 172, 176, 245; Col. J. D. Shakespear, 203; Dr. C. W. Siemens, 208, 211; P. M. Parsons, 237. Nine-inch muzzle-loading gun, J. A. Longridge, lvi. 179; tension, 181. 81-ton gun, tension, J. A. Longridge, lvi. 186, 190. Rule for thickness, lvi. 190.

— Fraser's gun *versus* Armstrong gun. J. A. Longridge, lvi. 175; Capt. Noble, 225.

Krupp's guns: F. A. Abel, xix. 372; C. W. Siemens, 378. Krupp's breech-loading arrangement: J. Vavasseur, xl. 133, 134.

Whitworth gun. Dimensions, quantities, and performance of the Whitworth gun. B. Britten, xix. 354; H. Conybeare, 392; J. Whitworth, 396, 399.

— Whitworth gun *versus* the Armstrong gun: Sir W. G. Armstrong, xix. 418; J. Locke, 421; J. Whitworth, 423, 425; W. B. Adams, 431; J. A. Longridge, 442, 446; G. P. Bidder, 442, 448, 453;—G. P. Bidder, xx. 408, 508, 509; H. Conybeare, 470; Sir W. G. Armstrong, 485; T. Aston, 496. Reports of the Ordnance Select Committee, and other official documents, xx. 510, 524 to 530.

ARTILLERY—BALLISTICS, INTERNAL (STRESS) :—

Expansive force of gunpowder in a tube affected by the size of the powder. Sir W. G. Armstrong, xxix. 296.

Experimental and geometrical investigation of internal ballistics. A. Morin, xxxix. 422.

Force developed by the explosion of gunpowder in a gun. J. A. Longridge, xix. 437;—Col. J. D. Shakespear, lvi. 202, 251.

Instruments employed by the Woolwich Committee. B. Britten, xxxiv. 191.

Method of determining the intensity and the law of the increase of pressure in the interior of a gun, in relation to time (by flow of solids). Gen. A. Morin, xlv. 371.

— of testing the force in a gun. C. W. Siemens, xix. 379.

Old rule for efficiency in hitting. Commander W. Dawson, lvi. 222.

Pressure of explosion of gunpowder: time, and velocity of the shot. C. B. Vignoles, xxix. 297.—B. Britten, xxxiv. 190, 306; P. M. Parsons, 256; J. A. Longridge, 280. Tables of results of experiment: B. Britten, xxxiv. 320, 323;—Col. J. D. Shakespear, lvi. 252.

**ARTILLERY—BORE, OVAL:—**

"Erosion of the bore in heavy guns, and the means for its prevention: with suggestions for the improvement of muzzle-loading projectiles."

C. W. Lancaster, xl. 115. (1 plate.)—Discussion: P. M. Parsons, xl. 125; J. Vavasour, 126, 131; Lord Elcho, 128; Dr. C. W. Siemens, 129; W. H. Barlow, 130; F. G. Wynne, 130; C. W. Lancaster, 134; T. E. Harrison, 137.

Guns of oval bore. C. W. Lancaster, xix. 377; xl. 123, 135;—Dr. C. W. Siemens, xl. 129; W. H. Barlow, 130.

Oval bore *versus* rifled bore. C. W. Lancaster, xxxiv. 273.

**ARTILLERY—CASUALTIES:—**

Air-space as a cause of explosion. Commander W. Dawson, lvi. 220.

Danger of bursting when the shot is not home; projectile theory of the cause of bursting. Sir W. G. Armstrong, xx. 486.

Erosion of the bore in heavy guns. B. Britten, xxxiv. 190;—C. W. Lancaster, xl. 116; P. M. Parsons, 125.

Guns injured by their own shot. Commander W. Dawson, lvi. 219.

Heating of guns, cause of. J. A. Longridge, lvi. 248; Dr. C. W. Siemens, 255; R. Wilson, 257.

Honeycombing of guns by gunpowder. J. G. C. Curtis-Godsman, xxxv. 5.

Krupp gun at Woolwich, bursting of. J. A. Longridge, xix. 292, 445; A. Longsdon, 343.

"Thunderer" explosion, caused by heat-expansion. Col. J. D. Shakespear, lvi. 202; J. L. Haddan, 214, 216; Commander W. Dawson, 218, 220; P. M. Parsons, 238.

**ARTILLERY—FUZES:—**

"Pillar fuze" for sea services. Sir W. G. Armstrong, xx. 474.

Time fuze, Sir W. G. Armstrong, xix. 410; concussion fuze, 411. Time fuze, J. Whitworth, 424.

**ARTILLERY—GUN-CARRIAGES:—**

"Gun-carriages and mechanical appliances for working heavy ordnance."

G. W. Rendel, xxxviii. 85. (1 plate.)—Discussion: Rev. J. White, xxxviii. 104; Commander R. G. Dawson, 105; Major A. Moncrieff, 107, 117; H. Butter, 110, 111; T. E. Harrison, 110; C. W. Siemens, 114; Vice-Admiral Sir C. Key, 116, 118; C. W. Lancaster, 118; S. J. Mackie, 119; Capt. Selwyn, R.N., 123; Sir W. G. Armstrong, 125; Col. Sir W. F. D. Jervois, C.B., 128; Capt. Noble, 130; Capt. T. B. Heathorn, R.A., 131; G. W. Rendel, 132.

Elswick hydraulic carriage. G. W. Rendel, xxxviii. 101; accumulator, 102.

— Breaks, or friction compressors. G. W. Rendel, xxxviii. 86, 87; H. Butter, 111, 112; C. W. Siemens, 114; Adml. Sir Cooper Key, 117; Capt. Noble, 130. War Office memorandum, 140.

Ericsson, or American compressor. G. W. Rendel, xxxviii. 88; S. J. Mackie, 121.

Moncrieff counterweight-carriage. G. W. Rendel, xxxviii. 100; Moncrieff hydro-pneumatic carriage, 100; Rev. J. White, 104; Major A. Moncrieff, 107; Adml. Sir Cooper Key, 117; Col. Jervis, C.B., 130.

**Artillery—Gun-carriages—continued.**

- "Nycoscope," to enable the gunners to maintain a fire after nightfall. Sir W. G. Armstrong, xix. 421.  
 Recoil, principle of the utilisation of. G. W. Rendel, xxxviii. 100, 132.  
 — Hydraulic recoil press. G. W. Rendel, xxxviii. 92.  
 Siemens laminar compressor. C. W. Siemens, xxxviii. 115.  
 Vavasseur compressor. S. J. Mackie, xxxviii. 122.  
 Wrought-iron carriages, by J. Vavasseur. S. J. Mackie, xxxviii. 120.

**ARTILLERY—LOADING GUNS:—**

- Breech-loading guns *versus* muzzle-loading guns. Sir W. G. Armstrong, xx. 478;—Lord Elcho, xl. 128; W. H. Barlow, 130; F. G. Wynne, 131; T. E. Harrison, 137;—Capt. R. A. E. Scott, R.N., lvi. 242, 243; Col. J. D. Shakespear, 254.  
 — Table of performance of English muzzle-loading and foreign breech-loading rifled guns. Col. J. D. Shakespear, lvi. 251.  
 — Capt. Noble's experiments. Sir W. G. Armstrong, xxxviii. 126; Capt. T. B. Heathorn, R.A., 131.  
 Mechanical loading. G. W. Rendel, xxxviii. 95, 98, 118. Hydraulic tube rammer, 96, 98. Jointed rammer, 96, 98.  
 — Elswick mechanical loader, xxxviii. 95, 98, 106.

**ARTILLERY—PROJECTILES:—**

- Chilled shot and shell. Major Palliser, xxviii. 407.  
 Common standard of ratios to be adopted in experiments. W. Conybeare, xix. 389;—C. B. Vignoles, xxix. 298.  
 Elongated projectile: W. Conybeare, xix. 391; G. P. Bidder, 453.  
 Gas-check rings. C. W. Lancaster, xl. 117.  
 Lead-coated projectiles: Sir W. G. Armstrong, xx. 472. Lead-coated shells, 473.  
 Penetrating power of shells. J. d'A. Samuda, xxvi. 195; F. J. Bramwell, 197; R. Mallet, 199; J. Bourne, 229.  
 — of shot. Capt. R. A. E. Scott, R.N., xxvi. 210.  
 Recoil of cannons and the motion of projectiles. M. Sebert, liv. 398.  
 Resistance of the air to the passage of projectiles. B. Britten, xix. 355; W. Conybeare, 391.  
 Rifled shot *versus* forced balls: W. Conybeare, xix. 394.  
 Round shot, shrapnel shell, canister shot: Sir W. G. Armstrong, xix. 407.  
 The Armstrong projectile, 408, 414.  
 Shells: J. C. Haddan, xix. 361, 362. Swedish percussion shell: E. A. Cowper, 373; C. W. Lancaster, 377.  
 Solid shot: Capt. Scott, R.N., xix. 366.  
 Whitworth's rifled projectiles: J. Whitworth, xix. 396, 397, 423. Flat-fronted shot, 397, 424. Tubular projectiles, 424.  
 — *versus* Armstrong projectiles: J. Whitworth, xix. 426.

**ARTILLERY—RESISTANCE OF GUNS:—**

- Action of stress in a gun. Capt. Noble, lvi. 225; J. Imray, 233; P. M. Parsons, 236; E. A. Cowper, 239; Capt. R. A. E. Scott, R.N., 241; J. A. Longridge, 246; W. H. Barlow, 251; Dr. C. W. Siemens, 254; R. Wilson, 256.  
 Conditions of stress in the Rodman, or hollow-cast, gun. J. Bourne xxvi. 169.



**Artillery—Resistance of guns—continued.**

Effect of sudden stress on guns. J. A. Longridge, lvi. 183, 250; Capt. Noble, 225; G. A. Canet, 229; E. A. Cowper, 239.

Endurance of a gun, as a measure of strength. J. A. Longridge, lvi. 193; G. A. Canet, 231.

Explosive resistance of experimental brass cylinders, plain, and encased in wire coils. J. A. Longridge, xix. 306, 308, 312, 340; J. Anderson, 359.

— of experimental cast-iron cylinders, encased in wire coils. J. A. Longridge, xix. 314, 340.

Irregular forms and vibration of cast-iron guns. Capt. Scott, R.N., xix. 368.

Locality of maximum strain. Col. J. D. Shakespear, lvi. 202.

Maximum resistance of guns without injury. G. A. Canet, lvi. 229.

Necessity for regularity of form, to absorb vibration. J. Parkes, ii. (1843), 107.

Proportioning guns to stress, by Capt. Dahlgren, U.S. H. Conybeare, xix. 383; regular forms, 388.

Resistance of projectiles and relative stress in the gun. J. Bourne, xxvi. 169;—B. Britten, xxxiv. 295.

Tensional stress and resistance in homogeneous guns. J. A. Longridge, xix. 296; lvi. 173, 177; G. A. Canet, lvi. 226; P. M. Parsons, 235.

— in guns constructed of hoops, or concentric cylinders. J. A. Longridge, xix. 299, 339, 446; investigation by C. H. Brooks, 329; J. Anderson, 358; W. Clay, 359; S. Pearson, 395;—J. A. Longridge, lvi. 173, 179, 201; Dr. C. W. Siemens, 207; Dr. J. Hopkinson, 212; J. L. Haddan, 213.

Tests of strength of guns. J. A. Longridge, xix. 292.

Uniform resistance of a gun. Formulas of Prof. Barlow, and Dr. Hart, lvi. 173; J. A. Longridge, 201, 258; Dr. C. W. Siemens, 207; W. H. Barlow, 251; Formula: G. A. Canet, 228.

**ARTILLERY—RIFLING:—**

Divergence or 'drift,' of projectile due to rifling. W. Conybeare, xix. 390, 400; J. Whitworth, 400.

Notice of rifled ordnance. C. B. Vignoles, xxix. 295.

Object of rifling guns. J. A. Longridge, xix. 435.

Pitch of rifling. J. Whitworth, xix. 396, 398, 399, 426; Sir W. G. Armstrong, 419, 426.

Proportion of pitch: H. Conybeare, xix. 389; Theroux's formula, 390; form of rifling, 393.

Resistances due to defective construction in rifling. B. Britten, xxxiv. 294, 322.

Rib-rifling. P. M. Parsons, xl. 125; J. Vavasseur, 126; F. G. Wynne, 130; C. W. Lancaster, 134.

Rifling guns with increasing pitch. E. A. Cowper, lvi. 240; Capt. R. A. E. Scott, R.N., 241.

Tabulated dimensions and quantities of rifled cannon. B. Britten, xix. 354; W. Conybeare, 392.

**ASPHALT:—**

"Applications of asphalt." (S.) E. Chabrier (translated by W. H. Delano), xliii. 276.

Asphalt flooring in warehouses, Marseilles dock. T. Hawthorn, xxiv. 150.

Asphaltic mastic for roofing and pavement. F. W. Simms, i. (1838), 6.

Seyssel asphalt for roofing and pavement. R. Sibley, ii. (1843), 96; P. Hogg, 96; R. Moreland, 97; R. Davison, 97.

**ASTRONOMICAL OBSERVATIONS:** Influence of vibrations of the soil at Greenwich Park, i. (1837) 31.

**ATLANTIC AND PACIFIC OCEANS, JUNCTION OF:—**

“Facilities for a ship canal communication between the Atlantic and Pacific oceans, through the Isthmus of Panamá.” Lieut.-Col. J. A. Lloyd, ix. 58. (2 plates.)—Discussion: Col. Lloyd, ix. 70, 72, 76, 80, 84, 87; G. O’Gorman, 71; J. Glynn, 73, 80; E. Hopkins, 74, 80, 87; R. Stephenson, 79, 81; T. M. Smith, 81; Capt. Moorsom, 86; Sir E. Belcher, R.N., 89.

“Junction of the Atlantic and Pacific oceans, and the practicability, of a ship-canal without locks, by the valley of the Atrato. F. M. Kelley, xv. 376. (1 plate.)—Discussion: E. Hopkins, xv. 397; L. Gisborne, 397, 406; Dr. Black, 400; Capt. Fitzroy, 402; F. Whishaw, 405; C. H. Gregory, 405; J. Gibbs, 407; Mr. Vincent, 409; T. Webster, 409; N. Beardmore, 410; F. M. Kelley, 412; R. Stephenson, 416.

“Review of the plans which have been proposed for connecting the Atlantic and the Pacific oceans by a navigable canal.” J. Glynn, vi. 399. (1 plate.)—Discussion: J. Glynn, vi. 427; Prince Louis Napoleon, 427; J. G. C. Curtis, 429.

Route, Chiriqui. F. M. Kelley, xv. 380.

—Darien. Lt.-Col. J. A. Lloyd, ix. 65;—F. M. Kelley, xv. 381.

—Nicaragua. J. Glynn, vi. 406.

—Panamá. J. Glynn, vi. 412;—Lt.-Col. J. A. Lloyd, ix. 58;—F. M. Kelley, xv. 380.

—Tehuantepec. J. Glynn, vi. 402;—F. M. Kelley, xv. 377.

**ATMOSPHERIC RAILWAY:** See *Railway* (Atmospheric).

**AURORA BOREALIS:** E. Edlund, lviii. 430.

**AUXILIARY STEAM POWER.** See *Ships and steam vessels:* Auxiliary steam power.

**AXLES.** See *Railways*, axles: *Railways*, wheels and axles.

**AXLEBOXES.** See *Railways*, axleboxes.

**BALANCE, automaton:**—“Description of the automaton balance for weighing coins, invented by William Cotton, governor of the Bank of England.” T. Oldham, ii. (1843), 121.

**BALLAST:—**

Ballast cranes, South Docks, Swansea. J. Abernethy, xxi. 317.

—Tyne Docks. T. E. Harrison, xviii. 503.

See *Ships and Steam Vessels* (Ballast).

**BALLISTICS,** internal. See *Artillery*.

**BALLS:—**

“Description of Mr. Henry Guy’s method of giving a true spherical figure to balls of metal, glass, agate, or other hard substances.” Communicated by B. Donkin, (T.) ii. 47; i. (1837), 22.

**BAMBOO,** size and hardness of bamboo. W. T. Doyne, xxii. 64.

**BANK NOTES:**—“On the introduction of letterpress printing for numbering and dating the Notes of the Bank of England.” T. Oldham, ii. (1842), 166.

**BARGES.** See *Canals*—Canal boats; *Canals*, steam power on; *Rivers*, steam power on.

**BAROMETERS :—**

Dent's aneroid barometer, viii. 141.

Howson's long tube barometer, xxi. 32.

Levelling with aneroid barometers. Dr. P. Schreiber, xliii. 320.

Measurement of heights by the barometer. W. Pole, xi. 23.

Notes on the variation of the barometric tides, in connection with diurnal land and sea breezes. H. F. Blanford, l. 222.

**BAR AT RIVER MOUTHS, &c. :—**

Formation and removal of bars: Sir J. Rennie, vi. 22;—J. T. Harrison, viii. 323;—W. A. Brooks, xxvi. 422, 439; C. B. Vignoles, 423; G. R. Stephenson, 427; G. H. Phipps, 431.

Piers. Employment of piers: J. T. Harrison, viii. 328; J. S. Russell, 330;—J. Gibbs, xv. 453, 555;—J. G. C. Curtis, xix. 107, 108; T. Hawksley, 119; G. P. Bidder, 125, 128;—J. Murray, xx. 325;—J. Hawkshaw, xxi. 307.

— Influence of parallel piers in scouring and removing bars. River Adour, Bayonne: C. B. Vignoles, xxi. 295. Port of Blyth: J. Abernethy, 323; Sulina mouth of the Danube: C. A. Hartley, 291; Sir J. Paxton, 296. Harbour of Swinemunde, on the Oder, Baltic Sea: W. A. Brooks, 296; Admiral Sir E. Belcher, 298; C. A. Hartley, 304.

— Non-parallel piers, Aberdeen Harbour: J. Abernethy, xxi. 323. Liffey, Bay of Dublin: C. B. Vignoles, 295; G. W. Hemans, 296; W. A. Brooks, 296; C. A. Hartley, 303.

Sandbank chain (for breaking up bars). W. H. Ter Meulen, xl. 319.

Aberdeen Harbour. J. Abernethy, xxi. 323, 342; J. Murray, 325; D. Stevenson, 337.

Bilbao, Spain. F. C. Barron, li. 251.

Blyth, port of. J. Abernethy, xxi. 322, 323.

Carlingford Lough; bar cut by dredging. J. Barton, xlv. 132.

Cromarty Frith. J. Murray, xx. 332, 333.

Danube, Sulina mouth: C. A. Hartley, xxi. 282, 290; trial rake to remove the bar, 285; scouring by the floods between piers, 291; state of the bar in 1861–72, xxxvi. 208.

Dogger Bank, the bar of the North Sea. R. W. Jackson, xx. 351, 353.

Dornoch, frith of. J. Murray, xx. 323, 325.

Dublin harbour. J. F. Bateman, xxvi. 424, 437.

— "The improvement of the bar of Dublin harbour by artificial scour." J. P. Griffith, lviii. 104 (1 plate).—Discussion: J. F. Bateman, lviii. 124, 138; Capt. Calver, R.N., 124; J. Abernethy, 125; Hyde Clark, 126; J. N. Shoolbred, 127; Sir J. Coode, 128, 142; A. Giles, 131; C. Bergeron, 131; L. F. Vernon-Harcourt, 134; G. Higgin, 136; J. W. Barry, 137; R. Rawlinson, C.B., 137; J. P. Griffith, 139; B. B. Stoney, 142; C. J. Appleby, 144.

Inverness Frith. J. Murray, xx. 327.

Kurrachee Harbour. J. Brunton, xxii. 453; W. P. Andrew, 483; W. A. Brooks, 487; W. Parkes, 488;—W. Parkes, xliii. 45.

Mersey. G. F. Lyster, xxvi. 425;—W. A. Brooks, xlv. 54.

Bars at River Mouths, &c.—*continued.*

Oporto. Bar off Oporto. J. Gibbs, xv. 453.

Pernambuco, harbour of. W. M. Peniston, xxii. 386.

Port Saïd. Probable formation of a bar at Port Saïd. J. Murray, xxvi. 467.

Solway Frith. J. Abernethy, xxi. 325.

Tees. Jos. Taylor, xxiv. 70; W. A. Brooks, 73; R. W. Jackson, 79;—W. A. Brooks, xxvi. 422.

Tyne. P. J. Messent, xxiv. 100;—W. A. Brooks, xxvi. 416, 421; G. R. Stephenson, 425.

Wear, Sunderland. J. Murray, vi. 274.

BATTERY, floating, *see Ships of War.*

## BEACONS, buoys, sea-lights, &amp;c.:—

“Construction of stationary floating bodies.” G. Herbert, xv. 1.—Discussion: Capt. Washington, R.N., xv. 10; A. Gordon, 10; E. A. Cowper, 11; Capt. Sir E. Belcher, 11, 15; G. Herbert, 11, 13, 16, 23; Capt. Fitzroy, 11; Capt. Poulter, 14; Capt. Moorsom, 14; J. S. Russell, 15; Mr. Rogers, 16; J. Bayliss, 17; Capt. Halsted, 18, 23; Capt. Gordon, 21; Capt. Shepherd, 21, 23; B. W. Croker, 23; J. Simpson, 23.

“— of floating beacons.” B. B. Stoney, xx. 300.—Discussion: J. Murray, xx. 309; A. Gordon, 309, 311; C. B. Vignoles, 309; G. B. Bruce, 309; C. E. Amos, 309; A. Giles, 309; G. Herbert, 310; Admiral Sir E. Belcher, 310; J. G. C. Curtis, 311; G. W. Hemans, 311; B. B. Stoney, 311; G. P. Bidder, 312.

Beacon, Goodwin Sands: J. Walker, vii. 136. Sea beacon at South Sand Head: G. Herbert, xv. 3, 16.

— Concrete beacon: B. B. Stoney, xxxvii. 346, 363.

— Iron pole beacon, Rundlestone Rock: J. N. Douglass, xxx. 2.

— Iron beacon, Wolf Rock: J. N. Douglass, xxx. 2; J. B. Redman, 22.

— Screw-pile beacon: A. Mitchell, vii. 124; J. Walker, 136.

— Stone beacons, Japan: R. H. Brunton, xlvii. 13. Menai Straits: D. P. Hewett, ii. (1842), 123.

Buoys. Bell buoy, Rundlestone Rock. J. N. Douglass, xxx. 4.

— *versus* beacons. Capt. Welbank, vii. 139; Capt. Washington, 139.

— Can buoy. B. B. Stoney, xx. 301; nun buoy, 301.

— Elongated buoys, by Mr. C. Atherton. A. Gordon, xx. 311.

— Herbert's buoy. G. Herbert, xv. 2; Capt. Washington, R.N., 10; A. Gordon, 10.

— cone-bottomed buoy. B. B. Stoney, xx. 303; A. Gordon, 309; G. Herbert, 310.

— Keel buoy. B. B. Stoney, xx. 300, 305, 308, 311; A. Gordon, 309; A. Giles, 309; G. Herbert, 310; G. W. Hemans, 311.

— *versus* cone-bottomed buoy. B. B. Stoney, xx. 312; G. P. Bidder, 313.

— Mooring buoys, Junction dock, Hull. J. Timperley, (T.) i. 41.

— Self-acting whistling buoy. E. T. Quinette de Rochemont, lvii. 377.

— Surveying buoy. Admiral Sir E. Belcher, xx. 310; J. C. Curtis, 311.

Light-ships, Japan. R. H. Brunton, xlvii. 12, 16.

Sea light-tower (floating). G. Herbert, xv. 6, 11, 13; E. A. Cowper, 11;

Capt. Sir E. Belcher, 11, 15; Capt. Fitzroy, R.N., 11; J. S. Russell, 15;

Capt. Halsted, R.N., 18; Capt. Shepherd, 21.

*See Lighthouse Illumination.*

**BEAMS, strains in, due to transverse pressure :—**

Continuous beams : W. Fairbairn, ix. 237, 276; J. Fowler, 245; W. Pole, 261; G. P. Bidder, 275;—J. Barton, xiv. 455;—J. Gaudard, xxviii. 555;—J. M. Heppel, xxix. 41; R. P. Brereton, 68; E. A. Cowper, 71;—W. Bell, xxxii. 171; xxxiii. 58.

— Experiments to find the points of contrary flexure. C. H. Wild, ix. 254.—J. Barton, xiv. 455, 457;—B. B. Stoney, xxix. 75; C. Reilly, 83.—T. C. Clarke, liv. 183.

Curvature of loaded beams : Experimental beam of lead. R. Sheppard, xvi. 81. Direction and amount of strains in beams : J. Barton, xiv. 443, 448, 450, 477; W. T. Doyne, 460; formula, 461; F. Higinbotham, 465; G. H. Phipps, 465, 467; R. Stephenson, 469, 484, 485; G. P. Bidder, 475.—J. Gaudard, xxviii. 549;—C. W. Siemens, xxix. 83; E. W. Young, 84; R. H. Bow, 76; O. Reilly, 90.

“Experiments for determining the position of the neutral axis of rectangular beams of cast and wrought iron, and wood, and also for ascertaining the relative amount of compression and extension at their upper and under surfaces when subjected to transverse strain.” J. Colthurst, i. (1841) 118.—Discussion : B. Donkin, i. (1841), 121; C. B. Vignoles, 121; W. Cubitt, V.P., 122; J. Horne, 122.

Graphical determination of the weights, corresponding to a given span and given unit-strain, which a double T-iron can support when resting on two bearings, and of which the moment of inertia and depth are known. M. de Blonay, xxxix. 303.

“Method of computing the strains and deflections of continuous beams under various conditions of load.” J. M. Heppel, xix. 625.

‘Neutral axis.’ P. W. Barlow, xiv. 464, 483; R. Stephenson, 469, 474, 485; W. H. Barlow, 480, 486; J. Hawkshaw, 488;—W. Bell, xvi. 66, 71, 74; P. W. Barlow, 76; W. T. Doyne, 77, 78; G. H. Phipps, 80.

Plate-web beams. J. Barton, xiv. 443; E. Clark, 446;—J. M. Heppel : xv. 155, 191; E. Clark, 193; Prof. Hodgkinson, 193; R. Stephenson, 193;—J. Gaudard, lviii. 324.

Rectangular beams of wrought-iron or cast-iron : W. Bell, xvi. 65, 67; P. W. Barlow, 76; J. M. Heppel, 78; E. A. Cowper, 79.

“Remarks on the position of the neutral axis of beams.” Dr. C. Schafhaeuti, iii. 248.

‘Resistance to flexure,’ and the neutral axis, by W. H. Barlow. P. W. Barlow, xiv. 463, 483, 486; W. H. Barlow, 480, 486; R. Stephenson, 485;—P. W. Barlow, xvi. 76; J. M. Heppel, 79; E. A. Cowper, 79; G. H. Phipps, 80;—W. H. Barlow, xxix. 50; G. H. Phipps, 70; C. Reilly, 86.

Sets of bars of wood, iron, and steel, after a transverse stress. Prof. W. A. Norton, xlv. 280.

See *Girders*.

**BEAMS, TRANSVERSE STRENGTH OF :—**

Brick beam made with Roman cement. “On the brick beam at Nine Elms.” C. L. Francis and G. W. Hemans, i. (1838), 16.—Discussion : i. (1838), 16, 20; G. F. White, xi. 492.

— with Portland cement. “Observations on artificial hydraulic, or Portland cement, with an account of the testing of the brick beam erected at the Great Exhibition, Hyde Park.” G. F. White, xi. 478, 492.

Beams, transverse strength of—*continued*.

"Results of experiments made with a view to determine the best figure and position for wooden bearers so as to combine lightness and strength." J. Horne, i. (1837), 30.

Strength of beams of Portland and other cements. G. F. White, xi. 492, 501.

Strongest form of timber beams. J. Horne, ii. (1842), 79.

Transverse strength of a cast-iron column. J. Brunlees, xvii. 445.

Use of hoop-iron bonding in brick and cement beams. C. L. Francis, i. (1838), 16; I. K. Brunel, 20;—G. F. White, xi. 493.

See *Girders*; *Tests* (proof loads or safe loads).

#### BELLS:—

Bells at Westminster:—"On the process of raising and hanging the bells in the clock-tower at the New Palace, Westminster." J. James, xix. 3. (1 plate.)—Discussion: A. Fry, xix. 13; T. Quarm, 13, 14; C. May, 13, 15, 18; W. Smith, 14; F. J. Bramwell, 15; G. Mears, 15; C. Greaves, 15; W. Pole, 15; J. Sewell, 16; J. W. Papworth, 18; J. James, 18; J. G. Appold, 19; J. Murphy, 19.

Composition of great bells. J. James, xix. 11, 18; C. May, 14; W. Smith, 14; G. Mears, 15; J. Murphy, 19, 20.

Form of bells. J. Murphy, xix. 19, 20.

Restoration of cracked bells by tin soldering. S. A. Varley, xix. 229.

Weight, dimensions, and tone of great bells. New Palace, Westminster: J. James, xix. 6, 18; W. Pole, 15. At Lucerne, J. James, 10; at Cologne, 10; of St. Gudule, Brussels, 11; at Moscow, 11; at Erfurt, 11; of St. Peter's, York, 11.

#### BELTS:—

Driving belts. G. W. Sutcliffe, lviii. 267.

Theory of transmission of power by belts. (Formula for width of belts.) G. Schmidt, lvi. 375.

Transmission of power by belts and cords. M. Leloutre, lvi. 376.

BENEVOLENT FUND. J. F. Bateman, liii. 2.

BENZOLE as a gas-light. C. B. Mansfield, viii. 217.

BESSEMER STEEL. See *Steel*, Bessemer, &c.

#### BITUMEN:—

Descriptions of bitumen. E. Chabrier, xliii. 290.

Notes on the deposits of fossil bitumen, near Zaho, in Kurdistan. L. Mongel, xli. 307.

#### BLAST FURNACES:—

Blast-furnace charges, on the size of, xxxix. 418.

Chenot process of iron manufacture. I. L. Bell, xxxiv. 130.

Forms and dimensions of blast furnaces. L. Grüner, liv. 362.

Protecting the lining of blast furnaces. J. D. Weeks, li. 331.

Repairing the upper part of a furnace-lining without blowing out. F. Firmstone, xlii. 334.

**Blast furnaces—continued.**

Butterley. "Description of the blast-furnaces, and of the barrow used for filling the charges of mine and coke into them, at the Butterley Ironworks Derbyshire." S. C. Kreeft, ii. (1843), 119.

Conegree blast furnaces, South Staffordshire. A. Slate, iii. 246.

Domnarfvet. Blast furnaces, Domnarfvet ironworks. C. Wittenstrom, lvii. 388.

Gleiwitz. On the construction and working of the blast-furnaces at the Royal Iron Foundry, at Gleiwitz, in Upper Silesia. H. Wiebmer, xl. 325.

Harz, Lower, smelting processes. Hr. Bräuning, lii. 347.

Hautmont. Blast-furnaces and rolling-mills at Hautmont (Nord), xlii. 332.

Longwy. Analysis of the white smoke from a blast-furnace, near Longwy. L. Grüner, xlv. 319.

Middlesbrough. "Description of two blast-furnaces erected in 1870, at Newport, near Middlesbrough." B. Samuelson, M.P., xxxii. 329. (3 plates.)

—Discussion: B. Samuelson, xxxii. 349, 367; I. L. Bell, 349, 365; Sir G. B. Airy, 354; F. J. Bramwell, 355; D. Forbes, 360; C. W. Siemens, 361, 365; E. Williams, 364; J. Lancaster, 365; J. Kitson, 365; E. A. Cowper, 366.

Nishni-Tagil. The Raschette blast-furnaces at Nishni-Tagil, in the Ural. C. Fröhlich, xl. 328.

**BLAST FURNACES, BLAST FOR:—**

Economy of hot blast. J. T. Smith, xxxiv. 138. Consett ironworks: T. Whitwell, xxxiv. 145; I. L. Bell, 151.

"Hot-air blast." J. B. Neilson, (T.) i. 81.

Hot-blast stoves:—"On recent improvements in regenerative hot-blast stoves for blast-furnaces." E. A. Cowper, xxx. 309. (1 plate.)—Discussion: C. W. Siemens, xxx. 315; Prof. Williamson, 317; T. R. Crampton, 318; E. A. Cowper, 319; C. B. Vignoles, 321; Sir W. Fairbairn, 321.

Supply of air to blast furnaces. J. Farey, i. (1840), 67.

See *Blowing Engines*.

**BLAST FURNACES, FUEL FOR:—**

Chemical action in blast furnaces. J. Farey, ii. (1843), 129.

Gas fuel in blast furnaces. M. Pernolet, xxiii. 447.

Peat as fuel for smelting iron. i. (1839), 29, 37.

— On the use of compressed peat in blast furnaces. A. Enigl, lvi. 348.

— *versus* charcoal (wood and peat) as fuel in blast furnaces. A. Enigl, lvi. 349.

**BLAST FURNACES, ECONOMY OF FUEL IN:—**

Blast-furnace gases, on the causes affecting the combustibility of. E. Belani, xlvii. 390.

"Conditions which favour, and those which limit the economy of fuel in the blast-furnace for smelting iron." I. L. Bell, xxxiv. 111. (1 plate.)

Discussion: C. W. Siemens, xxxiv. 133, 138; B. Samuelson, 136; J. T. Smith, 138, 139; G. J. Snelus, 139; E. A. Cowper, 140; Prof. D. Forbes, 142; T. Whitwell, 145; I. L. Bell, 146.

Efficiency of blast furnaces. L. Grüner, xlv. 310, 311.

Improvement in the construction of blast-furnaces, xliii. 403.

Increased make from blast furnaces (conditions of greatest economy). J. Wolters, lvi. 350.

Influence of size of furnace on the economy. C. Cochrane, xxx. 314.

**BLASTING:—**

Blasting ice. See *Ice-breaking*.

— kunkur rock. Major J. Browne, xxxviii. 75.

— masonry. Capt. E. Wawra, l. 295.

— rock in tunnelling. R. Mallet, xxiii. 298; J. Hawkshaw, 308;—  
O. Webb, xxxv. 23.

Dynamite. Blasting iron ore by dynamite. F. C. Barron, li. 246.

— Use of dynamite and electric ignition in blasting at Pfbiram (mines).  
J. Hozák, liv. 361.

Electricity. Blasting by electricity; historical notice. Sir J. Rennie, v. 104.

Gun-cotton. Blasting with gun-cotton. J. S. Russell, xxiii. 318;—A. A.  
Langley, xxxv. 21; S. P. Bidder, 25.

Gunpowder. Driving a railway tunnel with gunpowder, gun-cotton, and  
dynamite. O. Webb, xxxv. 23.

Nitro-glycerine. Blasting with nitro-glycerine. J. J. Curling, xxxv. 29.

Pudrolythe. Blasting with pudrolythe. T. Mason, xxxv. 22.

Alderney. Blasting mannez stone (sandstone-grit), Alderney, for Alderney  
Harbour. J. Jackson, xxxvii. 86.

Antrim. "Account of some blasting operations through the white limestone  
on the Antrim coast road, in the north of Ireland." W. Bald, i. (1837), 40.

— "Further observations on blasting the white limestone of the Antrim  
coast." W. Bald, i. (1837), 41.

Bilbao. Blasting rock: dynamite *versus* blasting powder, in tunnels for  
Bilbao Iron Ore Company's railway. F. C. Barron, li. 240; table, 253.

Delhi. Blasting rock, Delhi. Lieut. G. Tremenheere, i. (1837), 37.

Geelong. Blasting by gunpowder and litho-fracteur: tunnels for Geelong  
water supply. E. Dobson, lvi. 122.

Holyhead. Blasting the rock of Holyhead mountain for Holyhead new  
harbour. H. Hayter, xlv. 98, 110, 111, 113; T. Lovell, 115; C. Rigby, 115.

Mont Cenis. Blasting rock: Mont Cenis tunnel. T. Sopwith, Jun., xxiii. 264,  
268, 270, 312; D. S. Sutherland, 291, 293, 295; C. H. Smith, 299;  
W. C. Harrison, 317.

New Zealand. "Method of blasting rock for the Lyttleton harbour works,  
Canterbury, New Zealand." (S.) G. Thornton, lvi. 275.

Plymouth. "On the limestone, the lime cement, and method of blasting in  
the neighbourhood of Plymouth." W. Stuart, i. (1838), 35.

St. Gothard. Blasting rock: consumption of dynamite, St. Gothard tunnel.  
D. K. Clark, lvii. 244.

See *Boring Apparatus*; *Tunnelling*.

**BLASTING UNDER WATER:—**

Bickford's fuzes. "On the application of, to blasting under water." Lt.-Gen.  
Sir C. W. Pasley, i. (1838), 33.

— G. Edwards, iv. 370; Gen. Pasley, 371; Sir J. Rennie, 371.

Dynamite. "The blasting of rock under water with dynamite, &c." G. W.  
Keeling, (S.) xl. 138. (1 plate.)

— Blasting with, under water. J. Mahler, l. 296.

Electricity. Igniting blasts by means of. J. H. Striedinger, liii. 396.

Galvanism. "On firing blasts under water by." J. Bethell, i. (1838),  
35; xv. 334.



**Blasting under water—continued.**

- Gunpowder *versus* dynamite. G. W. Keeling, xl. 139, 142.  
 Gun-cotton. Blasting by, under water. Sir J. Coode, xxxvi. 186.  
 Lithofracteur. Removal of a jetty at Harling with. C. J. Appleby, xxxv. 23.  
 Simultaneous ignition of mines, and most advantageous grouping of fuzes.  
 J. H. Striedinger, l. 292.
- Brest. Apparatus for removal of submarine rocks, Brest harbour. M. Taza, lvii. 374.  
 Chatham. "Account of the firing of gunpowder under water by the voltaic battery at Chatham, March 16, 1839, under the direction of Col. Pasley." F. Bramah, Jun., and C. Manby, i. (1839), 50; J. Bethell, xv. 336.  
 Clyde. Removal of a rock in the bed of the River Clyde. J. Deas, xxxvi. 148.  
 Danube. Blasting operations in the Danube, at Nussdorf, liv. 303.  
 Delhi. "On some operations in blasting in the Jumna, at Delhi." Lieut. G. Tremeneheere, i. (1838), 37.  
 Hartlepool. "Description of a raft or float used for submarine blasting on the works of the West Hartlepool harbour and docks." T. Casebourne, x. 293.  
 Lake Superior. Removal of rock obstructing the entrance to Eagle Harbour. L. W. Schermerhorn, xlix. 349.  
 Newry, &c. Blasting operations for Newry navigation: Sir J. Rennie, iv. 371. Howth harbour, 372. Port Patrick and Donaghadee, 372.  
 New York. Blasting operations in New York harbour. J. H. Striedinger, l. 293; liii. 397; also lviii. 385.  
 "Royal George," Removing the wreck of the, J. W. Heinke, xv. 319; Lt.-Gen. Sir C. Pasley, 328, 329.  
 Severn, "The application of gunpowder as an instrument of engineering operations, exemplified by its use in blasting marl rocks in the," G. Edwards, iv. 361.—Discussion: G. Edwards, iv. 370; F. Giles, 370; T. Grissell, 371; Gen. Pasley, 371; Sir J. Rennie, 371.  
 Waikato. Blowing up snags in the Waikato river. R. R. Hunt, lvi. 334.

**BLOWING ENGINES:—**

- Butterley ironworks: S. C. Kreeft, ii. (1843), 119.  
 Longdale Iron Company, Virginia. Rotative water-pressure blast engines. W. Jones, lii. 363.  
 Newport, Middlesbrough: B. Samuelson, xxxii. 339.

**BOATS:—**

- Clifford's system of lowering boats, xiv. 418.  
 Diving-bell boat, liv. 296.  
 Fishing boats, 'Lerrets,' off the Chesil Bank. J. Coode, xii. 545.  
 — and life-boats. A. Henderson, xiii. 26.  
 Life-boats for ships, Forbes', xii. 24.  
 Steering. "Description of a new mode of, as applied to boats of light draught of water navigating shallow and rapid rivers." Capt. Henderson, i. (1841), 80.  
 See *Canal Boats*.

**BOILERS, steam.** See *Locomotive Boilers*; *Marine Engines*; *Steam Boilers*.

**BORE OF GUNS.** See *Artillery*.

**BORING AND BORING APPARATUS:—**

- Boring by rope, in the United States. H. Althaus, li. 339.  
 Deep-boring apparatus in the Haselgebirg. A. Aigner, xxxix. 408.  
 Diamond borer. Boring for coal with, near Pristoupin, in Bohemia. W. Bukovsky, xliii. 401.  
 — On an experiment in shaft-sinking by (Saarbrücken), xlv. 351.  
 — Comparison of the ordinary and diamond methods of boring. L. Stripelmann, liv. 358.  
 Instrument for determining the inclination of bore holes. Herr Selbach, lviii. 402.  
 Mather and Platt's earth-boring machine, xiv. 523;—J. L. Thomas, xxxiv. 62; A. Chambers, 64; E. Bainbridge, 66. Machine at Middlesbrough; S. C. Homersham, xxxiii. 474; W. Mather, 475; C. B. Vignoles, 477.  
 Rock-boring machine by Capt. Penrice. T. Sopwith, Jun., xxiii. 261.  
 Salt. On the production of salt from borings at Schönebeck. (Boring for brine). H. Mehner, xlv. 333.  
 — Deep boring at Goisern. (Boring for salt.) C. von Balzberg, liv. 355.  
 Water-jet. Boring by water-jet: Mortensen's system, by the Aalborg Company, Denmark. H. Pieler, xlv. 318;—Herr Köbrich, liii. 377.  
 — On a boring at Pürmallen, near Memel. Herr Köbrich, liii. 376.  
 See *Rock-drills*; *Wells*, well-sinking and boring.

**BOURNE** flow, see *Chalk* formation.

**BRAKE:—**

- Friction-brake, with Salter's balances. F. J. Bramwell, xlviii. 92.  
 Rope friction-brake, for the 'Samson' travelling crane, Alderney Harbour. J. Jackson, xxxvii. 87; Sir J. Coode, 94.  
 See *Railways* (brakes).

**BRASS CENTRIFUGAL PUMPS in sea water.**

Marselles graving dock. T. Hawthorn, xxiv. 157.

**BRAZIL**, bullock carts in. W. M. Peniston, xxii. 392.

**BREAKWATERS:—**

- Classification of breakwaters. D. Miller, xxii. 428;—B. B. Stoney, xxxvii. 350;—J. A. McConnochie, xlv. 127.  
 Cast-iron frames and concrete (Mole at Callao). C. Reilly, xxiv. 170.  
 Concrete, Construction of breakwaters with blocks of. T. R. Winder, xviii. 93; J. Murray, 108; Sir J. Rennie, 132;—D. Miller, xxii. 428;—B. B. Stoney, xxxvii. 352.  
 — Disintegration of concrete blocks. J. Murray, xviii. 138.  
 Cribwork for lake harbours, United States and Canada. Sir C. A. Hartley, xl. 232, 239.  
 Floating. Inefficiency of. J. S. Russell, xix. 655.  
 Iron framing, stone-casing, and rubble or concrete filling. D. Miller, xxii. 432, 449; J. Mitchell, 439; C. H. Gregory, 439; J. F. Bateman, 440; N. Beardmore, 440; F. W. Shields, 443; J. Jennings, 445.  
 "Observations upon the sections of breakwaters as heretofore constructed, with suggestions as to modifications of their forms." Lieut.-Col. H. D. Jones, R.E., ii. (1842), 124.—Discussion: Col. H. D. Jones, ii. (1842), 125; G. Rennie, 126; C. B. Vignoles, 127; A. Gordon, 127; Sir J. Robison, 128;

**Breakwaters—continued.**

- J. Walker, 128; J. Macneill, 128; H. R. Palmer, 129; Gen. Pasley, 130; W. Ball, 130.
- "On breakwaters." M. Scott, xix. 644. (1 plate.)—Discussion: J. S. Russell, xix. 651; J. A. Longridge, 655; W. A. Brooks, 656; J. G. C. Curtis, 657, 667; A. Giles, 662; J. Hawkshaw, 662; J. Abernethy, 663; J. Brunlees, 664; A. J. Robertson, 665; G. R. Burnell, 665; J. Bethell, 666; G. P. Bidder, 667, 673; J. Cooper, 667; J. Murray, 667; M. Scott, 670.
- "Practical forms of breakwaters, sea-walls, and other engineering works exposed to the action of waves." J. S. Russell, vi. 135. (1 plate.)—Discussion: J. S. Russell, vi. 143, 148; J. Murray, 143; Mr. Edwards, 144; J. Simpson, 145; Sir J. Rennie, 146.
- Rubble. Investigation of the most economical system of breakwater: Breakwaters of rubble stone, and blocks of concrete. J. Murray, xviii. 105; xix. 668.
- Best form of rubble for base, used in France. J. Murray, xviii. 107, 130.
- Slag. Breakwaters constructed of slag blocks, river Tees: Jos. Taylor, xxiv. 69, 71; W. A. Brooks, 73, 74. Slag for foundations: T. E. Harrison, xliii. 27.
- Table of cost of breakwaters. M. Scott, xviii. 161.
- Timber. Breakwaters of timber and rubble stone. M. Scott, xviii. 81; Sir J. Rennie, 117; J. Hawkshaw, 118; W. Parkes, 120; G. Rennie, 133; A. J. Robertson, 145.
- Wave screen and rubble slope. M. Scott, xviii. 84; J. Brunlees, 141;—J. Brunlees, xix. 649, 664; J. S. Russell, 651; A. Giles, 662; G. P. Bidder, 673.
- Width of breakwaters. W. Parkes, xxxix. 148; Sir J. Hawkshaw, 153.
- Aberdeen: Notice of construction with bags of concrete. W. D. Cay, xxxvii. 369.
- "The new south breakwater at," W. D. Cay, xxxix. 126. (3 plates.)
- Progress of the work. W. D. Cay, xlv. 149.
- Alderney. Breakwater at Braye Bay. W. Parkes, x. 276; R. Stephenson, 276;—D. Miller, xxii. 429, 434; W. A. Brooks, 444;—L. F. Vernon-Harcourt, xxxvii. 60.
- Concrete. G. F. White, xi. 487.
- Use of diving dress. J. Jackson, xxxvii. 88; R. Stephenson, xvi. 447.
- Algiers. Blocks of concrete; A. Gordon, ii. (1842), 127;—Sir J. Rennie, xviii. 132; J. Murray, 137; xxiv. 173; Sir J. Rennie, 177.
- Barbadoes: Bridgetown. Inclined concrete blocks. H. Hayter, xliii. 34.
- Barcelona. Construction of breakwaters in the harbour of Barcelona. D. M. Garran, xlv. 299.
- Blyth. Breakwater of framed timber and rubble stone, with upright walls, at Blyth. M. Scott, xviii. 72, 150; J. Murray, 98; J. Abernethy, 115;—M. Scott, xix. 644; W. A. Brooks, 656.
- "Description of a breakwater at the port of Blyth; and of improvements in breakwaters applicable to harbours of refuge." M. Scott, xviii. 72. (3 plates.)—Discussion: T. R. Winder, xviii. 91; J. Murray, 97, 104, 136; Gen. Sir H. Jones, 99, 119, 131; G. Rennie, 101, 133; J. Cooper, 101, 130, 141; J. Coope, 102, 110, 128; N. Beardmore, 102; Mr. Wells, 104; A. J. Robertson, 109, 145; R. Mallet, 112; J. Abernethy, 115; Sir J. Rennie, 116, 132; J. Hawkshaw, 118; W. Parkes, 119; G. P.

**Breakwaters:—continued.**

Bidder, 122, 129; J. B. Redman, 131; Capt. Sir E. Belcher, 133; J. Brunlees, 141; W. B. Hays, 143; W. Heinke, 149; M. Scott, 150.

Bouc. Breakwater of rubble stone and masonry, at Port of Bouc. G. Rennie, xviii. 134.

Callao, Mole at. C. Reilly, xxiv. 170.

Cassia, Cetta, Ciotat, Agde, and Vendres, breakwaters at Ports of. G. Rennie, xviii. 134.

Chantry Island, Lake Huron. Breakwater, landing pier, &c. Sir C. A. Hartley, xl. 235.

Cherbourg: size and composition of concrete blocks. G. F. White, xi. 488; xvi. 442; C. Manby, xvi. 445.

— Breakwater of rubble stone and rubble masonry. Gen. Sir H. Jones, xviii. 99; G. Rennie, 101; J. Murray, 140;—D. Miller, xxii. plate 9A.

Dover. See *Piers*.

Genoa. Old mole of rubble stones: G. Rennie, xviii. 101.

Holdfast Bay, Adelaide: breakwater of iron. W. B. Hays, xviii. 144.

Holyhead. Breakwater: rubble mound and vertical wall. H. Hayter, xlv. 105, 125; A. Giles, 116; J. N. Douglass, 119; J. Abernethy, 122; Sir J. Hawkshaw, 123.

Howth pier. Rubble stone and masonry. Sir J. Rennie, xviii. 117.

Kingstown harbour: piers. Rubble stones and masonry. Gen. Sir Harry Jones, xviii. 99, 131; Sir J. Rennie, 117.

Kurrachee. Inclined blocks of concrete. W. Parkes, xxxvii. 356, 364; B. B. Stoney, 376; R. G. Elwes, 378.

— "The Manora breakwater," W. H. Price, xliii. 1. (4 plates.)—Discussion: W. Parkes, xliii. 22, 44; W. A. Brooks, 23; J. Fleming, 24; J. B. Redman, 24; Sir H. Montgomery, 25; Sir B. Ellis, 26; Lieut.-Gen. Tremmenheere, 26; T. E. Harrison, 27; W. Airy, 28; R. Aitken, 28; Capt. E. K. Calver, 29; Sir J. Coode, 30; J. N. Douglass, 31; A. Giles, 32; Capt. E. Giles, 33; H. Hayter, 34; J. A. McConnochie, 37; D. Stevenson, 38; B. B. Stoney, 42; L. F. Vernon-Harcourt, 43.

Kustendjie: breakwater. "The extension of the south jetty at Kustendjie, Turkey." G. L. Roff, xxxix. 142. (1 plate.)—Discussion on this paper and Mr. Cay's paper on the new south breakwater at Aberdeen (*ante*). W. Parkes, xxxix. 147; J. Brunlees, 149; J. Grant, 150; G. R. Stephenson, 152; Sir J. Hawkshaw, 152; A. Giles, 153; J. Abernethy, 154; W. D. Cay, 154; Sir J. Coode, 157; B. B. Stoney, 158.

Leghorn. New mole. J. Murray, xxiv. 173.

Lyttleton breakwater. Vertical walls on rubble base, at Lyttleton harbour, Canterbury, New Zealand. E. Dobson, xxix. 112;—G. Thornton, lvi. 275.

Madras. Notice of breakwater. J. F. Bateman, lii. 17.

Marseilles. Mole of La Joliette, Marseilles. J. Murray, xviii. 107, 136; J. Hawthorn, 118; Sir J. Rennie, 132; G. Rennie, 134;—D. Miller, xxii. 431;—T. Hawkshaw, xxiv. 147.

Penmaenmawr: outwork in front of sea wall. H. Swinburne, x. 270; G. Rennie, 276.

Plymouth. "Account of the original construction and present state of the Plymouth breakwater." W. Stuart, i. (1841) 160.

— Removal of large stones by unequal atmospheric pressure. J. Walker, i. (1841) 115; ii. (1842) 128.

**Breakwaters—continued.**

Plymouth breakwater, notice of: Sir J. Rennie, v. 39. System of construction: J. Walker, vii. 203; slopes, 398;—Sir J. Rennie, 402; xviii. 117; —D. Miller, xxii. 430, 431.

Port Elliott, South Australia: breakwater of rubble stones. W. B. Hays, xviii. 143.

Port Said. Breakwater of blocks of concrete. Col. Sir W. T. Denison, xxvi. 445, 459, 475. Its action as a groyne: J. Abernethy, lv. 51; W. Parkes, 63; Sir J. Coode, 88;—F. de Lesseps, lvii. 875.

Portland. Section of the breakwater. D. Miller, xxii. plate 9A.

Rye. Concrete breakwater for Rye harbour. T. R. Winder, xviii. 97.

Venice. Great mole. Sir J. Rennie, vi. 128.

Wick. Notice of the breakwater: force of the waves. D. Stevenson, xliii. 38; lii. 17.

See *Harbours; Piers; Sea defences; Waves.*

**BRICKMAKING:—**

Blechingley. "An account of the brickmaking at Blechingley tunnel during the winter of 1840, and summer of 1841." F. W. Simms, ii. (1843), 145.

Boulet's brick and tile machinery. C. A. Oppermann, l. 194.

Composition of clay for making bricks: A. Pellatt, ii. (1843), 153.

Contraction of bricks when burnt. J. Farey, ii. (1843), 147; F. W. Simms, 148.

Hunt's brick-making machine. J. Farey, ii. (1843), 147; S. C. Homersham, 148; J. Hunt, 149.

Prosser's brick-making machinery. J. Farey, ii. (1843), 147, 148; J. W. Blashfield, 149; E. Cowper, 149.

Steam brick-kiln. H. W. Adams, xlv. 285.

**BRICKS:—**

Austin's perforated bricks. xiii. 205.

Brazil. Bricks manufactured in Brazil: W. M. Peniston, xxii. 404. Durability and preservation of bricks: G. O. Mann, xxiv. 9; C. B. Lane, 28.

Bricklaying. G. B. Bruce, x. 226; G. B. Lane, xi. 76.

— Work of a man raising bricks. P. Journef, iii. 221, 222; T. Grissell, 222.

Brick raising apparatus. P. Journef, iii. 221.

Cape, &c. Sun-dried bricks, Cape of Good Hope and India. J. Calvert, xxiv. 35.

Ceylon. Bricks in Ceylon, durability of. W. J. W. Heath, xxiv. 15.

'Ciment' mixed with clay, for firebricks. A. Pellatt, ii. (1843), 154.

Egypt. "Account of some Egyptian bricks from the Pyramids of Dashoor." J. T. Perring. Communicated by W. Newton, ii. (1843), 169.

Light bricks *versus* dense bricks. J. Farey, ii. (1843), 149; Capt. Buller, 151; J. Parkes, 151; J. Hunt, 152, 153; C. Fowler, 152; A. Pellatt, 152; E. Cowper, 152.

London, Manufacture and classification of bricks in. J. Bennett, ii. (1843), 153; G. Lowe, 153; J. Hunt, 153; J. Parkes, 155; J. Dickinson, 155.

Moisture absorbed by bricks: J. G. Gamble, xliii. 200.

Pease's West Firebrick Works, size and weight of bricks. W. Cudworth, xxii. 47.

Prosser's Compressed bricks. J. Farey, ii. (1842), 147, 148; A. Pellatt, 149; J. W. Blashfield, 149, 152; J. Parkes, 151.

**Bricks—continued.**

Punjab, durability of bricks of the. J. Calvert, xxiv. 35.

Weight of bricks :—Staffordshire brown bricks: C. B. Lane, xi. 78.

Various bricks: J. G. Gamble, xliii. 200.

**BRICKWORK :—**

Bolton, brick chimney. A. J. Adie ii. (1842) 177.

Brickwork blocks in compo: proportions of bricks, cement, and sand: tables. J. Grant, xxv. 102.

Hull. Old city walls, Hull. J. Timperley, (T.) i. 48.

Liverpool. Proportions of bricks and mortar in brickwork at Liverpool docks. R. Rawlinson, xxv. 115.

Strength of brickwork. See *Arches*; *Beams*, Transverse strength of; *Strength of Materials*—Stones, bricks, &c.

Weight of brickwork. G. F. White, xi. 501.

**BRIDGES—General references :—**

Historical notice of stone bridges, Sir J. Rennie, v. 25; cast-iron bridges, 28; swing bridges, 31; timber bridges, 33; drawbridges, J. Price, lvii. 2; swing bridges, J. Price, 8; C. Wawn, 46.

"Description of several bridges erected in Switzerland; with remarks on bridges of large spans, and on the stability of arches." (S.) J. Gaudard, lviii. 310. (2 plates.)

— Expansion and contraction of. See *Expansion*.

**BRIDGES, IRON, CAST-IRON :—**

Employment of cast-iron for bridges. J. A. Longridge, xxvii. 108; J. D. Baldry, 108; Capt. H. W. Tyler, 110; J. Taylor, 111; W. H. Barlow, 111; J. Fogerty, 112; C. B. Vignoles, 112; Sir C. Fox, 113; W. Wilson, 116.

Girder bridge. "Description of a bridge for a railway crossing over a turnpike road, where the depth between the soffit of the bridge and the surface of the rails is limited to twenty-one inches." J. Pope, i. (1841), 87.

Regent's Canal. "Description of the iron skew-bridge across the Regent's canal, on the Eastern Counties railway." E. Dobson, ii. (1842), 90.

**BRIDGES, IRON, CAST-IRON, ARCHED :—**

America. Cast-iron arched bridges. Z. Colburn, xxii. 540.

Andé. Account of the rebuilding of the bridge of Andé on the Seine. R. Bonnin, xliv. 242.

Coalbrookdale railway. J. D. Baldry, xxvii. 108, 110, 112.

Lary. "Particulars of the construction of the Lary bridge, near Plymouth." J. M. Rendel, (T.) i. 99.

Newcastle. Historical notice of designs for High-level bridge, v. 228.

Severn Valley railway. J. D. Baldry, xxvii. 108, 110, 112.

Southwark. Expansion and contraction of the arches with variations of temperature. G. Rennie, (T.) iii. 201, 212;—E. A. Cowper, xxii. 570.

Tewkesbury. "Account of the bridge over the Severn, near the town of Tewkesbury, in the county of Gloucester, designed by Thomas Telford and erected under his superintendence." W. Mackenzie, (T.) ii. 1.

— "Description of a cast-iron bridge, completed in the year 1840, for carrying the Birmingham and Gloucester railway over the Avon, near Tewkesbury." Capt. W. S. Moorsom, iii. 60.

See *Arches*.

## BRIDGES, IRON, CAST-IRON, TRUSSED :—

- Trussed girder bridges. J. Storey, iii. 58; R. Stephenson, vi. 219; G. P. Bidder, 220; C. B. Vignoles, 220. See *Girders*.  
 — Bishop Auckland and Weardale railway. "Description of cast and wrought-iron trussed girder-bridges, on the line of the Bishop Auckland and Weardale railway." J. Storey, iii. 58.—Discussion: Capt. W. S. Moorsom, iii. 60; T. Grissell, 60.  
 — "Description of a new system of trussed girder of wrought and cast iron, for bridges." F. Nash, iii. 102.

## BRIDGES, IRON, WROUGHT-IRON—GENERAL REFERENCES.

- Application of the theory of continuous girders to economy in bridge building. O. Bender, xlv. 278.  
 Brazil. Durability of iron bridges in Brazil. G. O. Mann, xxiv. 5.  
 Distribution of loads over the superstructure of bridges. M. Lavoine, xxxix. 301.  
 Germany. Railway bridges in Germany, code of rules for. R. Crawford, xxii. 13.  
 — Report of the German Railway Union. W. R. Browne, lvii. 212.  
 Scinde. Expansion and contraction of Warren girder viaducts, Scinde railway. J. Brunton, xxii. 472.  
 Strains on iron bridges, with regard to Wohler's experiments on strength after repeated concussions. E. Winkler, i. 201.  
 See *Girders*.

## BRIDGES, IRON, WROUGHT-IRON, ARCHED :—

- Inverted-arch bridge. E. A. Cowper, xxvi. 280, 281. F. W. Shields, 282; J. Hawkshaw, 284.  
 Principles of iron arched bridges. C. Reilly, xxvii. 85.  
 Rhine. The new bridge over the Rhine, at Basle, lvii. 330.  
 Rhone. Design for an iron-arch bridge over the Rhone. J. Gaudard, xxxi. 98.  
 Use, of bracing in the spandrels of arched iron bridges: B. B. Stoney, xxxi. 129. Tubular arched ribs, strongest section, 131.  
 Victoria, Pimlico. "Description of the Victoria bridge on the line of the Victoria station and Pimlico railway." W. Wilson, xxvii. 55. (3 plates.)  
 — "On the widening of the Victoria bridge and approaches to the Victoria station, and on new railways at Battersea." C. D. Fox, xxvii. 68. (4 plates.)  
 — Discussion on the two preceding Papers: C. D. Fox, xxvii. 82; C. Reilly, 84; C. H. Gregory, 87; G. H. Phipps, 88; R. P. Brereton, 92; B. Baker, 94; F. W. Shields, 97; J. M. Heppel, 98; E. A. Cowper, 99; W. Bell, 103; E. W. Young, 105; J. A. Longridge, 108; J. D. Baldry, 108; Capt. H. W. Tyler, 110; Jos. Taylor, 111; W. H. Barlow, 111; J. Fogerty, 112; C. B. Vignoles, 112; Sir C. Fox, 113, 119; W. Wilson, 116.  
 — comparison of Victoria Bridges: C. Reilly, xxvii. 84; G. H. Phipps, 88; R. P. Brereton, 92; B. Baker, 94; F. W. Shields, 97; J. M. Heppel, 98; W. Bell, 103; E. W. Young, 185. Results of tests, xxvii. 66, 74.  
 Wylam. "Railway bridge over the river Tyne, at Wylam, Northumberland." (S.) W. G. Laws, lvi. 262 (2 plates).  
 See *Arches*.

**BRIDGES, IRON, WROUGHT IRON : CONSTRUCTION :—**

Attachments of cross girders. G. O. Mann, xxiv. 5; J. Hawkshaw, 20; G. B. Bruce, 21; C. H. Gregory, 2c; F. W. Sheilda, 32.

India. Construction of bridges in India. Col. J. P. Kennedy, xxvii. 257; A. H. Vaux, 266.

Influence of rivets on the strength of girder flanges. B. Baker, xxxi. 152.

Pin-connected bridges: table of prices. T. C. Clarke, liv. 198. Table of particulars of bridges, 194.

— Kentucky river bridge, Cincinnati Southern railway. T. C. Clarke, liv. 182.

— Ohio river bridge, Cincinnati Southern railway. T. C. Clarke, liv. 180; specification, 196.

— Pin-connections *versus* rivet-connections. T. C. Clarke, liv. 179; W. H. Barlow, 214; B. Baker, 217; E. Matheson, 228; C. D. Fox, 229;— J. Gaudard, lviii. 320.

Punched holes *versus* drilled holes in bridge work. H. Hayter, xxii. 517. J. Cochrane, 530; F. J. Bramwell, 530.

Steel *versus* iron in construction. T. C. Clarke, liv. 192; W. H. Barlow, 216; C. D. Fox, 232; Dr. C. W. Siemens, 234;—J. Price, lvii. 1; H. Hayter, 42; W. H. Barlow, 43; E. W. Young, 53; L. F. Vernon-Harcourt, 56; W. Shelford, 75.

Use of steel in construction. Dr. C. W. Siemens, liv. 234.

**BRIDGES, IRON, WROUGHT IRON—ERECTION OF GIRDERS :—**

Basle. Erection of arched girder bridge over the Rhine, lvii. 331.

Jhelum bridge, Erection of girders of, from the shore, by floating stage. F. M. Avern, liv. 102.

Kentucky river bridge, erection of Cincinnati Southern railway, by corbelling out from the piers: lii. 307;—T. C. Clarke, liv. 182; E. Matheson, 228; C. D. Fox, 230, 232.

New York. Erection of East River suspension bridge. W. Hildenbrand, li. 299.

Queen Carola bridge, erection of, over the Elbe, on temporary timber staging. Hr. Hoffmann, lv. 351.

Ravi bridge. Erection of girders. R. T. Mallet, liv. 69.

Launching the girders. Chey-Air bridge, Madras railway. E. Johnston, xxiv. 188, 192.

— Gorai Bridge, Eastern Bengal railway. B. Leslie, xxxiv. 15, 38.

— Grand River viaduct, Mauritius railways. W. Ridley, xxv. 244; J. A. Longridge, 248, 249, 260; G. W. Hemans, 248; C. B. Vignoles, 249; J. M. Heppel, 249; R. Broad, 250; J. Hawkshaw, 256.

— Madras railway. Launching girders by horizontal movement. J. M. Heppel, xxii. 529; xxv. 249.

— Pennair bridge, Madras railway. E. W. Stoney, xxix. 388.

— Saône. Bridge over the Paris and Lyons railway. Sir C. Fox, xxv. 252, 255.

— Sarine bridge, Lausanne, Fribourg railway. G. H. Phipps, xxv. 252.

— Tolly's Canal, Bridge over the, Calcutta and South Eastern railway. J. A. Longridge, xxv. 261.

— Trent. Bridge over the Trent, Gainsborough. J. Fowler, xxv. 261.

— Raising the girders (Warren). Mhow-Ke-Mullee viaduct, Great Indian Peninsula railway. A. B. Terry, xxix. 378, 398.



Bridges, iron, wrought iron—erection of girders:—*continued*.

Sand cylinders for lowering bridge girders. H. Käferstein, lv. 353.

Shifting into position of girders of quay bridge, North West Railway, Austria, xliii. 335.

BRIDGES, IRON, WROUGHT-IRON LATTICE-GIRDER:—

Bow-string and lattice bridges, instances of. E. A. Cowper, xiv. 481, 490.

Iron bridges *versus* timber bridges. Capt. W. S. Moorsom, iii. 60, 64; T. Grissell, 60.—Z. Colburn, xxii. 318; C. H. Gregory, 322; A. S. Ormsby, 323; J. G. C. Curtis, 323; F. W. Sheilda, 323; W. Fairbairn, 327, 335.

See *Viaducts*, Iron.

Lattice bridge. Table of particulars of lattice bridges. T. C. Clarke, liv. 194.

Lattice girders *versus* box girders. B. Baker, liv. 218; G. H. Phipps, 226.

— *versus* plate girders. W. T. Doyne, ix. 355, 359; C. H. Wild, 357; G. P. Bidder, 358, 459; C. May, 358.—F. E. Duckham, lvii. 49; W. Shelford, 75;—J. Gaudard, lviii. 325.

— *versus* truss girders. F. J. Bramwell, xxii. 560; F. W. Sheilda, 572.

—J. Gaudard, lviii. 322.

Original invention of the lattice girder, iii. 64.

Augusta, Port. Iron girder bridges (lattice and plate). Port Augusta and Port Darwin railway, South Australia. R. C. Patterson, lvi. 34; C. D. Fox, 54.

Aussig. Bridge over the Elbe at Aussig, Austrian North Western railway. W. Hellwag, xxxix. 322.

Austria. Iron bridges on the lower Austrian south-western railways (Köetlin-Battig system). J. Kohn, lviii. 370.

Boyne bridge. W. H. Barlow, liv. 216.

Bremen. The Kaiser-Brücke over the Weser, at Bremen. E. Böttcher, xlix. 293.

Charing Cross. "The Charing Cross Bridge." H. Hayter, xxii. 512. (3 plates).—Discussion: G. H. Phipps, xxii. 528, 535; G. W. Hemans, 529; J. M. Heppel, 529; J. Cochrane, 530; F. J. Bramwell, 530; J. S. Russell, 531, 534; E. A. Cowper, 531; R. Mallet, 532; H. Hayter, 532; F. W. Sheilda, 532; J. Hawkshaw, 533, 538;—J. Gaudard, lviii. 321.

Cologne. Lattice-girder bridge over the Rhine, at Cologne. R. Crawford, xxii. 20; Capt. W. S. Moorsom, 34.

Danube. Bridge over the Danube to connect the Buda and Pesth railways. J. Seefehlner, li. 290.

Dirschau. Lattice-girder bridge over the Vistula at Dirschau. R. Crawford, xxii. 17; C. B. Vignoles, 27.

Domitz railway. Bridge over the Elbe, at Domitz. E. Häselser, xlvii. 307.

Dublin and Drogheda railway. "Description of a wrought-iron lattice bridge lately erected on the line of the Dublin and Drogheda railway." G. W. Hemans, iii. 63.—Discussion: Maj.-Gen. Pasley, iii. 64; Capt. W. S. Moorsom, 64; J. Walker, 64.

Elbe. Queen Carola bridge over the Elbe, near Schandau. Hr. Hofmann, lv. 350.

Inn. Iron bridge over the river Inn at Königswart. C. Schnorr v. Carolsfeld and A. Rottmüller, lv. 347.

Bridges, iron, wrought-iron lattice-girder—*continued*.

Ipewich, Queensland. Bridge over the river Bremer, Ipewich, Queensland.  
C. D. Fox, xxvi. 53.

Jhelum. "The Jhelum bridge, Punjab Northern State railway." F. M. Avern, liv. 94. (1 plate).—Discussion on this paper, R. T. Mallet's paper on Ravi bridge (*seq.*), and H. Lambert's paper on Alexandra Warren bridge (*ante*); W. H. Barlow, liv. 108; W. Harvey, 108; C. H. Gregory, 110; G. B. Bruce, 111; G. Turnbull, 112; W. F. Potter, 112; R. G. Elwes, 113; I. Bell, 114; J. Brunlees, 115; W. Harvey, 115; E. Benedict, 116; P. T. S. Large, 117; E. J. Jones, 118; R. T. Mallet, 119; H. Lambert, 120; F. M. Avern, 121.

Kehl. Lattice-girder bridge over the Rhine at Kehl, near Strasburg.  
R. Crawford, xxii. 21.

Königswart. Iron railway bridge over the Inn. H. Gerber, xlvii. 310.

Litsini bridge, over the Neva at St. Petersburg, xliii. 334.

Liverpool. Segmental lattice bridges over the Leeds and Liverpool canal, and the canal wharf. J. Hawkshaw, xi. 13.

Lucerne. Iron lattice bridge, Lucerne, across the Reuss. J. Gaudard, lviii. 317.

Magdeburg railway. Substitution of a single span for two openings of the Magdeburg railway bridge. H. Käferstein, lv. 352.

Marienburg. Lattice-girder bridge over the Nogat at Marienburg. R. Crawford, xxii. 19; C. B. Vignoles, 27.

Moerdijk. The Moerdijk bridge over the Hollandsche Diep on the Antwerp and Rotterdam railway. T. E. Harrison, xxxvii. 234;—M. Baude, xlv. 279.

New Portage. The New Portage bridge. G. S. Morison, xlvii. 305.

New Ross. "The New Ross bridge." H. N. Maynard, xxxii. 146. (2 plates).—Discussion: J. W. Grover, xxxii. 152, 164; J. Abernethy, 153, 158; H. Conybeare, 153, 165; G. W. Hemans, 154, 159; J. B. Redman, 154; G. B. Bruce, 155; G. H. Phipps, 155; R. P. Brereton, 156; W. B. Lewis, 160; F. J. Bramwell, 160; W. Lloyd, 160; H. N. Maynard, 160; W. Shelford, 162; J. Brunlees, 163; C. B. Vignoles, 164; J. R. Moase, 165; W. Bell, 171.

Offenburg. Lattice-girder bridge over the Kinzig at Offenburg. R. Crawford, xxii. 16.

Pennsylvania railroad. C. D. Fox and F. Fox, xxxix. 65, 85.

Posen, railway. Iron railway bridge over the River Wartha near Posen.  
G. Meyer and H. Hinrichs, xlix. 296.

Rajpootana (State) railway. Table of cost and leading dimensions of large bridges. H. Bell, l. 154.

Ravi. "The Ravi bridge, Punjab Northern State railway." R. T. Mallet, liv. 61. (1 plate).—Discussion: *Vide* F. M. Avern's Paper on Jhelum lattice bridge (*ante*).

Riddes. Railway bridge over the Rhone. J. Gaudard, lviii. 313.

Riga. Bridge over the Dwina at Riga, xlv. 277.

Rugby and Leamington railway. "Description of a wrought-iron lattice bridge, constructed over the line of the Rugby and Leamington railway." W. T. Doyne, ix. 353. (1 plate).—Discussion: W. T. Doyne, ix. 357, 359; C. H. Wild, 357; G. P. Bidder, 358, 359; C. May, 358.

St. Louis. The St. Louis bridge over the Mississippi. M. Lavoinnie, li. 293.

**Bridges, iron, wrought-iron lattice-girder—continued.**

- St. Petersburg. Bridge over the Neva at St. Petersburg, xliii. 334.  
 Saltash bridge. R. P. Brereton, xxi. 268. Form of the arch, xxxi. 158.  
 Tetschen. Railway bridge over the Elbe at Tetschen, on the North Western railway of Austria. J. Brick, xlii. 303.  
 Wohlhusen. Bridge over the Emme, Berne-Lucerne railway. J. Gaudard, lviii. 313, 314.

**BRIDGES, IRON, WROUGHT-IRON TUBULAR GIRDER AND PLATE-GIRDER:—**

Formulas for the strength of tubular-girder bridges. W. Fairbairn, ix. 235; E. Hodgkinson, 250; W. Pole, 262.

"On tubular girder bridges." W. Fairbairn, ix. 233. (1 plate.)—Discussion: C. Mauby, ix. 242, 275; C. B. Vignoles, 244; Capt. W. S. Moorsom, 244; J. Simpson, 244; J. S. Russell, 245, 270; J. Fowler, 245, 272; G. P. Bidder, 246, 275; E. Hodgkinson, 250; C. H. Wild, 253, 267; W. Pole, 257; Capt. Simmons, 267, 274; Gen. Sir C. Pasley, 268; Prof. Willis, 269, 274; G. Rennie, 270; J. Farey, 271; J. Colthurst, 272; J. Glynn, 273; J. Walker, 274.

Table of particulars of tubular bridges. T. C. Clarke, liv. 194.

Britannia bridge, its preservation and durability. E. Clark, xxvii. 559, 578; C. H. Gregory, 579.

Cannon Street Terminus. J. W. Barry, xxvii. 411.

Chalk Farm Lane bridge. R. B. Dockray, viii. 169.

Chey-Air. "The Chey-Air bridge, Madras railway." E. Johnston, xxiv. 184. (1 plate.)—Discussion: J. M. Heppel, xxiv. 190; J. Walker, 194; G. Berkley, 194; A. Giles, 195; J. Hawkahaw, 195; Sir J. Rennie, 196; J. M. Heppel, xxv. 249.

Gorai. "Account of the bridge over the Gorai river on the Goalundo extension of the Eastern Bengal railway." B. Leslie, xxxiv. 1. (4 plates.)—Discussion: B. Leslie, xxxiv. 24, 38; J. B. Redman, 24, 37; G. H. Phipps, 26; J. W. Barry, 27; J. F. Bateman, 28; F. Fox, 30; J. T. Wood, 32; G. B. Bruce, 34; Major J. Browne, R.E., 34; G. W. Hemans, 37; G. Berkley, 37.

India. Plate girder bridges for India. E. Johnston, xxiv. 188; J. M. Heppel, 193; G. Berkley, 194; J. Hawkahaw, 195.

Pennair. "Description of the Pennair bridge, Madras railway, N.W. line." E. W. Stoney, xxix. 382. (2 plates.)—Discussion on this and on A. R. Terry's paper on Mhow-ke-Mullees viaduct: W. Parsey, xxix. 398; G. Berkley, 399; J. M. Heppel, 400; C. B. Vignoles, 402.

Torksey bridge, by Mr. J. Fowler. W. Fairbairn, ix. 236; J. Fowler, 245, 272. Strength, ix. 181, 236, 242, 246, 248, 254, 257, 272, 276.

United States. Compound girder (plate-iron and wood) bridge, Northern Central railroad, U.S., by J. Millholland. Z. Colburn, xxii. 542.

**BRIDGES, IRON, WROUGHT-IRON TRUSS (WARREN GIRDER, &c.):—**

"Studies of iron girder bridges recently executed, illustrating some applications of the modern theory of the elastic resistance of materials." C. Reilly, xxix. 403. (5 plates.)

Alexandra (Warren girder). "The Alexandra bridge, Punjab Northern State railway." H. Lambert, liv. 71. (1 plate.)—Discussion: see F. M. Avern's Paper on Jhelum lattice bridge (p. 30).

Bridges, iron, wrought-iron truss (Warren girder, &c.)—*continued*.

"American iron bridges." Z. Colburn, xxii. 540. (2 plates.)—Discussion: Z. Colburn, xxii. 557, 573; F. J. Bramwell, 558; F. Jenkin, 567; E. A. Cowper, 569; G. H. Phipps, 571; F. W. Sheilda, 572.

— Trussed iron railway bridges in the United States: Z. Colburn, xxii. 546. Rider's-truss bridge, 547. The Whipple truss bridge, 547. Bollman truss bridge, 552. Fink truss bridge, 553.—Sir C. A. Hartley, xl. 168.—T. C. Clarke, liv. 179.

— — Sir C. A. Hartley, xl. 168: Across the Mississippi at Rock Island, 168; across the Ohio at Cincinnati, 169; across the Missouri, near St. Louis, 170; across the Mississippi at St. Louis, 171; across the Niagara, 174.

— "The design generally of iron bridges of very large span for railway traffic." T. C. Clarke, liv. 179.—Discussion: *see Bridges*, long span (*below*).

Desmochado River, Central Argentine railway. C. Reilly, xxiv. 393.

Harper's Ferry. Bollman truss bridge at Harper's Ferry, Baltimore and Ohio railroad. Z. Colburn, xxii. 552.

Kentucky river bridge, Cincinnati Southern railway, lii. 307;—T. C. Clarke, liv. 182.

Monongahela river. Fink truss bridge over the Monongahela river, Baltimore and Ohio railroad. Z. Colburn, xxii. 554.

New York and Long Island bridge, various designs, li. 304.

Newark Dyke (Warren girder). "A description of the Newark Dyke Bridge on the Great Northern Railway." J. Cubitt, xii. 601.—Discussion: Sir C. Fox, xii. 608; G. P. Bidder, 608; C. B. Vignoles, 609; Capt. W. S. Moorsom, 610; B. Stephenson, 610; E. Hodgkinson, 611; J. M. Rendel, 611.

Ohio river bridge, at Cincinnati, Cincinnati Southern railway. T. C. Clarke, liv. 180. Specification, 196.

Wey and Arun canal, Horsham and Guildford railway. C. Reilly, xxiv. 394.

#### BRIDGES, LONG SPAN:—

Comparative table of leading particulars of English, Continental, and American iron railway bridges of long span. T. C. Clarke, liv. 194, 237; W. H. Barlow, 214; B. Baker, 218; C. D. Fox, 231; C. Shaler Smith, 244. Supplementary table, 246.

"Design generally of iron bridges of very large span for railway traffic." T. C. Clarke, liv. 179 (3 plates).—Discussion: W. H. Barlow, liv. 214; B. Baker, 217; E. W. Young, 221; G. H. Phipps, 226; E. Matheson, 227; C. D. Fox, 229; Max am Ende, 233; G. Whitehead, 233; Dr. C. W. Siemens, 234; T. C. Clarke, 235; G. Berkley, 238; W. H. Bidder, 239; C. Elwin, 241; Sir C. A. Hartley, 242; C. Shaler Smith, 244.

Iron railway bridges. Principles of economical design and construction for long spans. T. C. Clarke, liv. 186, 236; girders, 188; cantilevers, 191; stiffened suspension bridges, 188; arches, 192;—B. Baker, liv. 221; G. H. Phipps, 226; E. Matheson, 227; C. D. Fox, 231; C. Elwin, 241.

Iron bridges of large span. J. Gaudard, lviii. 318.

Limiting spans for iron girders. W. H. Barlow, xxx. 92.—T. C. Clarke, liv. 188; W. H. Barlow, 214. For steel: W. H. Barlow, 217.

Long span bridges. Calculations *a priori* of the weights. Max am Ende, liv. 238; W. H. Bidder, 239.

**Bridges, Long Span—continued.**

Long span. Railway and road bridge between New York and Long Island. Hr. Barkhausen, lviii. 368.

— stiffened suspension bridge over the Monongahela river at Pittsburg. J. Seefehlner, lviii. 369.

“Use of the suspension bridge with stiffened roadway, for railway and other bridges of great span.” G. B. Airy, xxvi. 258.—Discussion: see the same Paper under BRIDGES, SUSPENSION (p. 39).

**BRIDGES, MOVABLE—GENERAL REFERENCES:—**

“Movable bridges.” J. Price, lvii. 1. (2 plates).—Discussion: H. Hayter, lvii. 40; W. H. Barlow, 43; C. Wawn, 45; F. J. Bramwell, 47; F. E. Duckham, 48; A. Bache, 50; A. Giles, 53; E. W. Young, 53; J. Fogerty, 54; W. B. Lewis, 56; L. F. Vernon-Harcourt, 56; F. G. M. Stoney, 57; E. A. Cowper, 58; J. Price, 58, 60; J. F. Bateman, 60; M. Barret, 60; T. C. Clarke, 70; J. Gaudard, 71; Sir C. A. Hartley, 72; D. Hutton, 74; W. Shelford, 75; J. E. Williams, 76.

Table of movable bridges. J. Price, lvii. 31 to 39.

**BRIDGES, MOVABLE—DRAWBRIDGES OR BASCULES:—**

Action of wind on bascule bridges. J. Price, lvii. 5.

Bascul bridge, by W. R. Browne. A. Bache, lvii. 50.

— Birkenhead great float. J. Price, lvii. 4.

— Bristol harbour railway. W. B. Lewis, lvii. 56.

— Copenhagen. J. Price, lvii. 3, 5.

— at Drumsna over the Shannon. J. Price, lvii. 5, 23.

— (railway) over a canal, Holland. J. Fogerty, lvii. 55.

— Overhead balance beams, Holland. J. Price, lvii. 4.

— Table of bascules, or drawbridges. J. Price, lvii. 31.

“Description of a new balance bridge over the Royal Canal at Dublin.” (S.) B. B. Stoney, lviii. 285 (1 plate).

Drawbridge. Old dock, Hull. J. Timperley, (T.) i. 11; Junction dock, 39.

— “Description of a drawbridge at Bowcombe Creek, near Kingsbridge, Devon.” G. C. Dobson, ii. (1843), 68.

— Drawbridge over the estuary of the Leven, Ulverstone and Lancaster railway. J. Brunlees, xiv. 246; xvii. 446.

— Drawbridge at lock entrance, Southampton docks. A. Giles, xvii. 547.

— Hydraulic drawbridge, Sunderland docks. J. Murray, xv. 439.

— Hydraulic moving power. See *Hydraulic Machinery* for Bridges.

— “Description of the Ouse bridge on the Hull and Selby railway.” W. B. Bray, iv. 86.—Notice: J. Price, lvii. 3.

— Resistance of drawbridges: Ouse bridge. W. B. Bray, iv. 89.

— Strains produced in arched drawbridges by wind pressure. R. Kohfahl, iv. 345.

Utilising the descending weight of the bridge. M. Barret, lvii. 69.

**BRIDGES, MOVABLE—FLOATING:—**

Floating bridges *versus* permanent bridges:—Moorings *versus* foundations: B. Leslie, liii. 3; H. N. Maynard, 20; R. Aitken, 20; C. A. Latrobe, 21; J. Dixon, 21; W. B. Lewis, 22.

“Skeleton pontoon bridge.” (S.) B. W. Blood, liv. 249. (1 plate.)

Table of pontoon bridges. J. Price, lvii. 39.

Bridges, movable—floating—*continued*.

Canada. Corduroy floating bridge, county of Durham, by G. Stewart. A. MacDougall, liii. 15; S. Fleming, C.M.G., 18.

Dublin. Broadstone terminus. "Description of the insistent pontoon bridge at the Dublin terminus of the Midland Great Western railway of Ireland."

R. Mallet, ix. 344. (1 plate.)—Discussion: W. Radford, ix. 352; W. Cubitt, P., 352; J. N. Warren, 352.

— Broadstone terminus: Pontoon bridge. J. Price, lvii. 28.

— Floating swing bridges, Spencer Docks. J. Price, lvii. 17.

"Hooghly floating bridge." B. Leslie, liii. 2. (3 plates.)—Discussion:

A. Macdougall, liii. 15; C. Greaves, 15; E. Matheson, 16, 22; F. J. Bramwell, 16; Sir G. Campbell, K.C.S.I., 17; G. Turnbull, 18; S. Fleming, C.M.G., 18; H. M. Brunel, 19; J. Wood, 19; H. N. Maynard, 20; R. Aitken, 20; C. A. Latrobe, 21; J. Dixon, 21; W. B. Lewis, 22; E. Benedict, 22; H. Wakefield, 25; B. Leslie, 25.

India. Floating bridges in the north of India, by Sir A. Taylor. J. Wood, liii. 19.

Torpoint. "Particulars of the construction of the floating bridge lately established across the Hamoaze, between Torpoint in the county of Cornwall, and Devonport in Devonshire." J. M. Rendel, (T.) ii. 213.

— "On the floating bridge across the Hamoaze from Devonport to Torpoint." J. M. Rendel, i. (1838), 21.

## BRIDGES MOVABLE—ROLLING OR TRAVERSING:—

Advantages of traversing bridges. J. Price, lvii. 19. Usual type, 21.

Inconvenience of travelling bridges, on rails at the bottom. F. E. Duckham, lvii. 50.

Kinipple's submerged caisson bridges. J. Price, lvii. 23.

Lavanchy's expanding portable bridge, xv. 27.

Table of traversing bridges. J. Price, lvii. 37.

Traversing bridges, frictional resistance. J. Price, lvii. 20.

Barmouth: Cambrian railway viaduct. Telescope bridge. H. Conybeare, xxxii. 143.

Carmarthen rolling bridge: R. P. Brereton, xxxii. 158.

Cork and Youghal Railway. Traversing bridge. J. Price, lvii. 22.

Dovey viaduct. Telescope or sliding bridge. H. Conybeare, xxxii. 143.

Dublin. Traversing bridge. J. Price, lvii. 21.

London. Traversing bridge moved by hydraulic power. Millwall Docks.

F. E. Duckham, l. 95;—J. Price, lvii. 21; F. E. Duckham, 49.

Newry. Traversing bridge over the canal. J. Price, lvii. 23.

Rhyl. Sliding bridge. H. Conybeare, xxxii. 143.

Southampton Docks. Rolling timber bridge. A. Giles, xvii. 347; lvii. 53.

Swansea. Traversing bridge, River Tawe or Towey. J. Abernethy, xxxii. 159;—J. Price, lvii. 21, 26.

Ulverston and Lancaster railway. Traversing bridge over the Leven and the Kent. J. Price, lvii. 22.

Weedon rolling bridge: G. H. Phipps, xxxii. 155.

## BRIDGES, MOVABLE—SWING:—

Action of wind on swing bridges. J. Price, lvii. 7; H. Hayter, 40; C. Wawn, 45; F. E. Duckham, 49; W. B. Lewis, 56; T. C. Clarke, 71; Sir C. A. Hartley, 73.

Bridges, movable—swing—*continued*.

- Advantage of swing bridges. J. Price, lvii. 6.  
 Best arrangement of girders for swing bridges. J. Price, lvii. 18.  
 Cast-iron swing bridges. J. Price, lvii. 8; C. Wawn, 46; J. Fogerty, 54.  
 "Conditions of resistance of swing bridges." (S.) J. Gaudard (translated by L. F. Vernon-Harcourt), xlvii. 217. (1 plate.)  
 Free rollers *versus* wheels. J. Price, lvii. 20; F. G. M. Stoney, 57.  
 Friction gear *versus* toothed gear. T. C. Clarke, lvii. 71.  
 Frictional resistance of swing bridges. J. Gaudard, xlvii. 221;—J. Price, lvii. 20; Sir C. A. Hartley, 73.  
 General features of design and construction. J. Price, lvii. 9, 10, 12, 13, 14, 18, 23; H. Hayter, 41; E. Bazalgette, 44; C. Wawn, 46; F. E. Duckham, 49, 50; E. W. Young, 53; F. G. M. Stoney, 57; M. Barret, 61.  
 Hydraulic buffers. M. Barret, lvii. 65.  
 — moving power. See *Hydraulic Machinery* for Bridges.  
 Suitable diameter of rollers. J. Price, lvii. 9; F. G. M. Stoney, 57; E. A. Cowper, 58.  
 Swing bridges and traversing bridges. Locking apparatus. J. Price, lvii. 25, 59; H. Hayter, 42; E. Bazalgette, 44; C. Wawn, 46; T. C. Clarke, 71; Sir C. A. Hartley, 73.  
 — *versus* drawbridges. F. E. Duckham, 1. 95.  
 — *versus* traversing bridges. J. Price, lvii. 20. F. E. Duckham, 49.  
 — Two-leaved bridges *versus* central pivot bridges. C. Wawn, lvii. 47; J. Gaudard, 71; Sir C. A. Hartley, 72.  
 Table of swing bridges. J. Price, lvii. 31.
- Amboy, New Jersey. Swing bridge railway over the River Baritan. J. Price, lvii. 11.  
 Amsterdam-Rotterdam railway. 'Turnrail' bridge (over canals). Chev. F. W. Conrad, iii. 194.—J. Price, lvii. 19, 26.  
 Birkenhead. Swing bridges at the East and West Floats. J. Price, lvii. 9, 26.  
 Blackwall and Millwall Extension railway. Swing bridges. L. F. Vernon-Harcourt, xxxiv. 162.  
 Brest. Swing bridge over the Penfeld. J. Price, lvii. S.  
 Buffalo. International bridge, over the Niagara. Sir C. A. Hartley, vii. 73.  
 Cambrian Railway viaducts. Swing bridges. H. Conybeare, xxxii. 137.  
 Clinton. The inflexible arched-truss timber bridge, by D. C. McCallum over the Mississippi, at Clinton, Ohio. J. R. Mosse, xxii. 315.  
 Dunkirk swing bridge. J. Price, lvii. 12, 13.  
 Fleetwood bridge. H. Hayter, lvii. 40.  
 Gravelines. Swing bridge. J. Price, lvii. 12, 13, 26.  
 Grimsby. Swing bridge on the Manchester, Sheffield, and Lincolnshire railway. J. Price, lvii. 13.  
 Haarlem. Bridge over the Spaarne at Haarlem. Chev. F. W. Conrad, iii. 180.  
 Herefordshire canal. "A description of the turnbridges on the Herefordshire and Gloucestershire canal." S. Ballard, i. (1839), 52.  
 Hull. Swing bridge, Humber dock. J. Timperley, (T.) i. 19.  
 — South bridge, Hull. J. Price, lvii. 6; H. Hayter, 40; C. Wawn, 45.  
 — Sculcoates bridge, Hull. J. Price, lvii. 10.

**Bridges, movable—swing—continued.**

- Kansas City bridge. J. Price, lvii. 12.  
 Koningshaven canal. Swing bridge over the Koningshaven canal, Rotterdam. P. J. Waller, xlix. 301.  
 Leith. Swing bridge at Leith docks. J. Price, lvii. 15; F. E. Duckham, 49.  
 London. Swing bridges at London docks. E. Bazalgette, lvii. 44.  
 — Swing foot-bridge, Millwall. F. E. Duckham, lvii. 50.  
 — Swing bridges, West India docks. L. F. Vernon-Harcourt, lvii. 56.  
 Marseilles repairing docks: swing bridge. M. Barret, xlii. 305.  
 — Swing bridge at Marseilles repairing dock. J. Price, lvii. 15; M. Barret, 60. Swing bascule bridge, Marseilles docks. J. Price, lvii. 27. Tilting swing bridges for low elevations. M. Barret, lvii. 68.  
 Newcastle-on-Tyne. Swing bridge, on a water centre, over the Tyne. J. Price, lvii. 16; C. Wawn, 45.  
 Norwich. "Account of the cast iron swing-bridge over the River Wensum at Norwich." G. P. Bidder, v. 434. (1 plate.)—Discussion: G. P. Bidder, v. 437; Gen. Pasley, 438; W. Thorold, 438.  
 Ouse. Swing bridge over the Ouse, at Goole, on the North-Eastern railway. J. Price, lvii. 9, 26, 59; C. Wawn, 45; J. F. Bateman, 60.  
 — Swing bridge over the Ouse at Naburn, North-Eastern railway. C. Wawn, lvii. 47.  
 Philadelphia. Wrought-iron bridge across the Schuylkill river, Pennsylvania Central railroad. Z. Colburn, xxii. 549.  
 Portumna. "Description of a bridge across the River Shannon at Portumna." T. Rhodes, iii. 99.  
 Rochester. Swing bridge. E. W. Young, lvii. 53.  
 Rock Island bridge, over the Mississippi. Sir C. A. Hartley, lvii. 72.  
 Rye. "Account of a swing bridge over the River Rother at Rye, on the line of the Ashford and Hastings branch of the South Eastern railway." C. May, xi. 422.—Discussion: G. P. Bidder, xi. 425; C. May, 426; P. W. Barlow, 426.  
 Shannon. Bridges across the Shannon. J. Fogerty, lvii. 51; E. A. Cowper, 58; J. F. Bateman, 60; J. Price, 60.  
 Stettin. Swing bridge over the Parnitz. J. Price, lvii. 13.  
 United States. Roller pivot for swing bridges. Z. Colburn, xxii. 551.  
 Velsen, Holland. Swing bridge over Amsterdam canal. H. Hayter, lvii. 40.  
 — Swing bridge (steel) railway over the North Sea canal. J. Price, lvii. 2, 14, 26, 58; H. Hayter, 43. Limiting strains, D. Hutton, 75.  
 Whitehaven. Swing bridge at Whitehaven harbour. J. E. Williams, lv. 46, 76.

**BRIDGES, MOVABLE—VERTICAL LIFT:—**

- Dublin. Lift bridge, Royal Canal. J. Price, lvii. 27, 60; J. Fogerty, 55, 56.  
 Grand Surrey Canal. "Description of a vertical-lift bridge erected over the Grand Surrey Canal, on the Thames Junction branch of the London Brighton, and South Coast railway." R. J. Hood, ix. 303. (1 plate)  
 Newport, Monmouth. Lift bridge. C. Wawn, lvii. 47.  
 Table of lift bridges. J. Price, lvii. 39.  
 See *Foundations*; *Piers of Bridges*; *Viaducts*.

**BRIDGES, STEEL, ARCHED:—**

- Upright arched bridges. J. B. Eada, xxxix. 320.  
 See *Bridges*, Iron construction (p. 28).



## BRIDGES, STONE:—

Leading dimensions of stone bridges for common roads. (T.) i. 214.

Settlement of a stone railway bridge. R. P. Brereton, xxxi. 158.

Allanton. "Description of the bridge over the river Whitadder at Allanton (Berwick)." J. T. Syme, iii. 101.

Athlone. "Description of the bridge erected at Athlone, by the Commissioners for the improvement of the Shannon." General Sir H. D. Jones, viii. 296.—Discussion: W. Cubitt, V.P., viii. 303; Capt. Moorsom, 303; J. Walker, 303; W. Radford, 303.

Belle Alliance, at Berlin, xlvii. 311.

Blackfriars. "Description of the plan of restoring the archstones of Blackfriars bridge." J. Cooper, (T.) i. 131.

Bolton and Preston railway. "On the construction of the bridges on the Bolton and Preston railway." A. J. Adie, ii. (1842), 176.

Chateau Gontier, reconstruction of the. M. Legras, xxxix. 392.

Chester. Notice of the old bridge over the Dee at Chester, (T.) i. 207.

— "An account of the new, or Grosvenor bridge over the Dee, at Chester." (T.) i. 207; i. (1837), 35.

Claix bridge. M. Cendre, lvi. 302.

Dresden. The Albert bridge at Dresden. M. Haquaard, l. 204.

Dunhamstead. "Description of a bridge, built of blue lias limestone, across the Birmingham and Gloucester railway at Dunhamstead." Capt. J. Vetch, i. (1841), 136.

Fegana. Bridge over the torrent Fegana, in the province of Lucca. G. Marzocchi, liii. 310.

Frouard. Raising the Frouard-station road-bridge. A. Picard, liv. 293.

Hagger Leases Branch Railway. "Description of an oblique bridge over the River Gaunless, on the Hagger Leases Branch railway, Durham." J. Storey, iv. 59.

Kingston. "An account of the bridge over the Thames at Kingston, Surrey." J. B. Birch, ii. (1842), 184.

Leeds. "Account of the building of the Wellington bridge over the River Aire at Leeds." J. Timperley, iii. 104.—Discussion: G. Rennie, iii. 107, 111; Mr. Page, 111; B. Green, 112; Col. W. M. Leake, 113.

Liège. Boverie bridge at Liège: its failure. G. Rennie, iii. 111.

London (Old) Bridges. F. Giles, ii. (1842), 87; J. B. Redman, xlix. 69, 75; removal, 70; Sir G. B. Airy, 120.

Lucens. Bridge over the river Broye, Lucens. J. Gaudard, lviii. 310.

Madras railway. "Description of the method of building bridges upon brick wells, in sandy foundations; illustrated by the viaduct over the river Poiney, on the line of the Madras railway." G. B. Bruce, xvi. 449.—Discussion: See *Foundations*, cylindrical.

Middlesbrough railway. "Description of a stone bridge on the Middlesbrough railway." J. Harris, i. (1841), 136.

Owen-More. Bridge over the Owen-More river. W. Bald, i. (1837), 46.

Philadelphia. Fall of the western arched approach to South street bridge. D. McN. Stauffer, lvii. 326.

Ponte della Maddelena. "Description of the Ponte della Maddelena over the River Serchio near Lucca." R. Townshend, ii. (1842), 60.

Pont-y-tu-Prydd. "Account of the Pont-y-tu-Prydd over the Taaf, Glamorganshire." T. M. Smith i. (1838), 36; v. 474. (4 plates.)

Bridges, stone—*continued*.

Pont-y-tu-Prydd. The conditions of the stability of the arch of the Pont-y-tu-Prydd. G. Snell, v. 468. (2 plates.)

— Pressure on the piers. C. Cowper, x. 241.

Royal Border. "Description of the Royal Border bridge over the River Tweed, on the York, Newcastle, and Berwick railway." G. B. Bruce, x. 219. (1 plate.)—Discussion: J. Hawkshaw, x. 233, 234; C. May, 233; Capt. Moorsom, 234, 238; W. Radford, 234, 240; G. H. Phipps, 235; Sir J. Rennie, 235; W. Gravatt, 235, 240; F. C. Penrose, 236; W. Cubitt, V.P., 236; G. B. Bruce, 236, 243; R. Stephenson, 237, 238, 241; J. E. Errington, 238; J. M. Rendel, 239, 241; G. P. Bidder, 239; A. S. Jee, 240; J. S. Valentine, 240; C. Cowper, 241; A. Gordon, 242.

Stratford. "An account of the mode of construction adopted in building a new stone bridge over the River Lea at Stratford-le-Bow." J. B. Redman, (T.) iii. 343.

— "An account of the new stone bridge over the River Lea at Stratford-le-Bow." J. B. Redman, i. (1839), 77.

Tulow. "An account of the alterations at Tulow bridge." C. Forth, ii. (1842), 165.

Turin. "Details of the construction of a stone bridge erected over the Dora Reparia, near Turin, by Chevalier Mosca, engineer and architect to the King of Sardinia." B. Albano, (T.) i. 183.

Vevey. Concrete bridge, Vevey. J. Gaudard, lviii. 310.

Walker. Skew bridge crossing the Shields road at Walker. B. Green, v. 229.

Wear. "Account of the Victoria bridge erected across the River Wear, on the line of the Durham Junction railway." D. Bremner, ii. (1843), 97.

Westminster. "History and description of Westminster bridge, accompanied with detailed drawings." F. Whishaw, i. (1838), 44.

See *Arches*; *Viaducts*, Stone or Brick.

## BRIDGES, SUSPENSION:—

Historical notice. Sir J. Rennie, v. 31.

Cable-making for suspension bridges, as exemplified at the East River Bridge, New York. W. Hildenbrand, li. 296.

"Disturbances of suspension bridges and the modes of counteracting them."

A. S. Lukin and C. E. Conder, xvi. 458.—Discussion: R. Stephenson, xvi. 473; A. S. Lukin, 473; C. E. Conder, 474; P. W. Barlow, 476, 478; E. Clark, 477.

Employment of suspension bridges for railways. W. H. Barlow, xxvi. 252; J. Hawkshaw, 283.

"Free arch" *versus* "braced chain." W. G. Laws, lvi. 273.

Principles of construction. G. B. Airy, xxvi. 258, 273, 286, 307; G. W. Hemans, 265; R. P. Brereton, 266, 271; G. K. Radford, 268; H. Law, 268; C. H. Gregory, 268; R. Richardson, 268; C. De Bergue, 269; C. B. Vignoles, 270; C. Reilly, 272, 274; P. W. Barlow, 278; E. A. Cowper, 279; J. Hawkshaw, 283; J. H. Porter, 284; G. P. Bidder, Jun., 285; F. J. Bramwell, 290; W. R. Kinipple, 293; T. M. Johnson, 294; Capt. Tyler, 297; E. W. Young, 299; G. H. Phipps, 301; J. M. Heppel, 304; J. E. Whiting, 306; W. H. Barlow, 309.

Steel *versus* iron, in construction. W. H. Barlow, xxvi. 256.

Bridges, suspension—*continued*.

Suspension bridges *versus* beam bridges. P. W. Barlow, xiv. 483, 486; R. Stephenson, 486.

— *versus* cantilever bridges. T. C. Clarke, liv. 191; B. Baker, 220; E. W. Young, 221.

— *versus* arch bridges. C. D. Fox, liv. 231.

— most economical for railway iron bridges. T. C. Clarke, liv. 188.

— "On the use of the suspension bridge with stiffened roadway for railway and other bridges of great span." G. B. Airy, xxvi. 258.—Discussion on this Paper and W. H. Barlow's Paper on Clifton Suspension Bridge (*below*): W. H. Barlow, xxvi. 265, 308; Capt. Claxton, R.N., 265; G. W. Hemans, 265; R. P. Brereton, 266, 271; Sir G. B. Airy, 266, 273, 286, 307; G. K. Radford, 267; C. H. Gregory, 268; B. Richardson, 268; C. de Bergue, 269; C. Cochrane, 269; C. B. Vignoles, 270; C. Reilly, 272, 274; W. H. Le Feuvre, 273; P. W. Barlow, 278; E. A. Cowper, 279; F. W. Shields, 282, 284; J. Hawkshaw, 283; J. H. Porter, 284; G. P. Bidder, Jun., 285; C. B. Lane, 289; F. J. Bramwell, 290; W. R. Kinipple, 293; T. M. Johnson, 294; R. Price Williams, 295; Capt. H. W. Tyler, 297; E. W. Young, 299; G. H. Phipps, 301; J. M. Heppel, 304; J. E. Whiting, 306.

Brazil. Suspension bridge, Caxanga, Brazil. C. B. Lane, xxiv. 28; A. De Mornay, 29.

Brooklyn suspension bridge, wire rope for. W. H. Barlow, xlix. 53.

Cincinnati. Bridge across the Ohio, Cincinnati, by W. Roebling. G. K. Radford, xxvi. 267.

Clifton suspension bridge. I. K. Brunel, i. (1841), 78.

— "Description of the Clifton suspension bridge." W. H. Barlow, xxvi. 243. (2 plates).—Discussion: *vide* G. B. Airy's Paper on Suspension bridges of great span (*ante*).

— expansion and contraction. W. H. Barlow, xxvi. 249.

Haslar Lake. "An account of a proposed suspension bridge over the Haslar Lake at Portsmouth." A. Burn, jun., i. (1840), 52.

Hammersmith. Action of the wind, causing oscillation. W. A. Provis, i. (1841), 77. Construction: I. K. Brunel, 78; J. M. Rendel, 79.

— *versus* Conway bridge. W. A. Provis, (T.) iii. 368.

Hungerford. Curve of the chains: R. P. Brereton, xxxi. 157.

Lambeth suspension bridge: its stiffness. W. H. Barlow, xxvi. 252.

Menai. "Observations on the effects produced by wind on the suspension bridge over the Menai strait, more especially as relates to the injuries sustained by the roadways during the storm of January 1839, together with brief notices of various suggestions for repairing the structure." W. A. Provis, (T.) iii. 357.

— "Account of the alterations made in the structure of the Menai bridge during the repairs in consequence of the damage it received from the gale of January 7, 1839." T. J. Maude, (T.) iii. 371.

— "An account of the repairs and alterations made in the structure of the Menai bridge, in consequence of the damage it received during the gale of January 7, 1839." T. J. Maude, i. (1841) 58.

— "Observations on the effect of the wind on the suspension bridge over the Menai strait, more especially with reference to the injuries which its roadways received during the storm of January 1839." W. A. Provis,

**Bridges, suspension—continued.****Menai—continued.**

- i. S. Seaward, 79, 80; (1841), 74.—Discussion: E. Cowper, i. (1841) 77, 79; I. K. Brunel, 77; J. M. Rendel, 79; B. Donkin, 80.
- Expansion of main chains. I. K. Brunel, i. (1841), 78; J. M. Rendel, 128.
- Minneapolis suspension bridge. T. M. Griffith, liii. 308.
- Montrose. Trussing of Montrose suspension bridge. J. M. Rendel, i. (1841), 79.
- "Memoir of the Montrose suspension bridge." J. M. Rendel, i. (1841), 122.—Discussion: S. Seaward, i. (1841), 127; J. M. Rendel, 127, 128, 129; H. R. Palmer, 128; C. B. Vignoles, 128; J. Walker, 128.
- "Description of the state of the suspension bridge at Montrose, after it had been rendered impassable by the hurricane of the 11th of October, 1838; with remarks on the construction of that and other suspension bridges, in reference to the action of violent gales of wind." Colonel Pasley, R.E., (T.) iii. 219.
- "On the state of the suspension bridge at Montrose, after the hurricane of the 11th of October, 1838, with remarks on the construction of that and other suspension bridges in reference to the action of violent gales." Lt.-Gen. Sir C. W. Pasley, R.E., i. (1839), 32.
- Niagara. Railway bridge across the Niagara. Mr. Baker, xiv. 459; C. Manby, 459.
- Suspension bridge (common road), Lewistown. F. J. Bramwell, xxvi. 290.
- Pesth. Notice of Pesth suspension bridge. B. W. Croker, viii. 276.
- Pittsburg. Long-span stiffened suspension bridge over the Monongahela river at Pittsburg. J. Seefehlner, lviii. 369.
- Tees. Railway suspension bridge over the river Tees, failure of. J. Walker, i. (1841), 129; J. M. Rendel, 129.
- Yarmouth. "An account of the failure of the suspension bridge at Great Yarmouth." W. Thorold, iv. 291.—Discussion: J. M. Rendel, iv. 293, 296; G. H. Phipps, 295; J. Leslie, 295; C. Newton, 295; G. Mills, 296; J. Field, 296; T. Griessell, 296; J. Walker, 296.

**BRIDGES, SUSPENSION—SUSPENSION BARS:—**

- "Description of a method of rolling bars for suspension bridges and other similar purposes." T. Howard, viii. 273.—Discussion: T. Howard, viii. 275, 279; J. Farey, 275; B. W. Croker, 277, 279; J. Field, 278; S. Hocking, 278; A. Slate, 279; C. B. Vignoles, 280; I. K. Brunel, 281.
- Howard's patent rolled suspension links, Charing Cross bridge. H. Hayter, xxii. 518.
- Links of girder and suspension bridges, form of. W. H. Barlow, xxvi. 256; C. Reilly, 277.—G. Berkley, xxx. 220, 231 to 235, 274; G. H. Phipps, 256; W. Parsey, 264; W. E. Rich, 270; R. P. Brereton, 270; Sir C. Fox, 272.
- Proportions of eye-bar heads and pins, as determined by experiment, C. Shaler Smith, li. 287.
- Rolled suspension-links, manufacture of. G. Whitehead, liv. 233; T. C. Clarke, 237; G. Berkley, 238.
- Strength of suspension-bars. See *Tests*, &c. (Suspension bridges).
- and proportion of bars for suspension bridges and lattice bridges. T. Howard, viii. 274, 279; B. W. Croker, 279; A. Slate, 279; C. B. Vignoles, 280; I. K. Brunel, 281;—G. Berkley, xxx. 220. Pesth bridge, B. W. Croker, viii. 277. Hungerford bridge, S. Hocking, viii. 278.
- Tension rods for iron bridges, United States. Z. Colburn, xxii. 549.

**BRIDGES, TIMBER :—**

Durability of timber bridges. J. Macneill, i. (1841), 91;—J. R. Mosse, xxii. 314; Z. Colburn, 318; Capt. W. S. Moorsom, 324; R. Mallet, 325; W. Fairbairn, 327;—T. M. Johnson, xxvii. 574.

Importance of close-jointing in timber bridges. J. M. Rendel, i. (1841) 90.

Strongest combination of parts in timber bridges. R. P. Brereton, xxxi. 160.

"Use of the timber of the Palmyra palm in the construction of bridges." H. Byrne, xxii. 58.—Discussion: J. Bethell, xxii. 62; J. S. Russell, 62; C. H. Gregory, 63; W. Pole, 63; W. T. Doyne, 63.

Brazil. Timber bridges in Brazil. W. M. Peniston, xxii. 391; F. W. Sheilds, 415.

Camden Town, Regent's Canal bridge. R. B. Dockray, viii. 170.

Dordrecht. "The Dordrecht railway bridge, and the foundation of the railway bridge at Rotterdam." Sir J. G. N. Alleyne, (S.) xlii. 213. (1 plate.)

Hilgay. "Description of a timber bridge erected over the River Ouse, at Hilgay, on the line of the Lynn and Ely railway." J. S. Valentine, ix. 149.

Japan. Typical Japanese road bridge. W. F. Potter, lvi. 22.

Leyden. Timber bridges near Leyden. Chev. F. W. Conrad, iii. 190.

Mirfield. "Wooden bridge over the River Calder, at Mirfield, Yorkshire, designed and erected by William Bull," (T.) ii. 87.

— "Drawing and description of a wooden bridge erected over the River Calder, at Mirfield, Yorkshire." W. Bull, i. (1837), 27.

Poldervaart canal. "Description of the method adopted in preparing the foundation and in building the bridge over the Poldervaart, on the line of the Amsterdam and Rotterdam railway." By the Chevalier Conrad. Translated and compiled by C. Manby, vi. 149. (4 plates.)—Discussion: G. P. Bidder, vi. 157, 158; G. Edwards, 157; M. A. Borthwick, 158; Sir J. Rennie, 158.

Rotterdam. See *Dordrecht* (above).

Royal Border bridge. Temporary bridge. G. B. Bruce, x. 229.

Spain. Timber bridges in Spain. J. G. C. Curtis, xxii. 323.

Sprotboro'. "Description of two bridges over the River Don and the canal with the lodge and approaches, on the estate of Sir Joseph Copley, Bart., at Sprotboro'." H. Carr, x. 302.—Discussion: W. Radford, x. 306; R. Stephenson, 306; H. Carr, 306.

Stratford-le-Bow. Temporary timber bridge. J. B. Redman, (T.) iii. 349.

Vink. Trussed timber bridge over the Rhine, near Vink. Chev. F. W. Conrad, iii. 191.

Vogelenzang: lattice timber bridge. Chev. F. W. Conrad, iii. 187.

Warmonder Leede, timber bridge over. Chev. F. W. Conrad, iii. 189.

Youghal. "Account and description of Youghal bridge, designed by Alexander Nimmo." J. E. Jones, (T.) ii. 157.

See *Viaducts*, timber.

**BRIDGES, TIMBER, AMERICAN :—**

"American timber bridges." J. R. Mosse, xxii. 305. (1 plate.)—Discussion: Z. Colburn, xxii. 318; C. H. Gregory, 321; A. S. Ormsby, 323; J. G. C. Curtis, 323; F. W. Sheilds, 323; A. Giles, 324; Capt. Moorsom, 324; R. Mallet, 325.

**Bridges, Timber, American—continued.**

- Bridges on the New York and Erie railroad. Z. Colburn, xxii. 318.  
 Howe truss bridge, improved: J. R. Mosse, xxii. 309, 310. Philadelphia and Reading railroad: 309.  
 Inflexible arched truss, by D. C. McCallum, xxii. 312. Type of the inflexible arched truss bridge on American railways: J. R. Mosse, xxii. 312.  
 — Over the Mississippi at Clinton, Ohio. J. R. Mosse, xxii. 315.  
 Timber lattice bridges, America:—Common road bridges. J. R. Mosse, xxii. 306. The Howe lattice bridge: J. R. Mosse, xxii. 306. Howe lattice bridge over the James river, Danville railroad: 307. Type of Howe lattice bridge, Portland railroad, U.S.: 308.

**BRINE:—**

- Brine springs and Salt works at Schönebeck. H. Mehner, xlv. 332.  
 Composition of Eau de Bex (brine), lvi. 373.  
 Piccard's apparatus for evaporating brine without fuel. C. von Balzberg, lv. 409.  
 — Practical results obtained with Piccard's brine evaporator. C. von Balzberg, lvi. 372.

**BRIQUETTES. See Fuels.****BUILDING, Buildings:—**

- Building materials in Japan. W. F. Potter, lvi. 8.  
 Employment of bamboo in buildings, Ceylon. W. J. W. Heath, xxiv. 14.  
 See *Exhibition of 1851; Fireproof Buildings; Railway Stations; Stone, building; Warming Buildings.*

**BUOYS. See Beacons, Buoys, &c.****CABLES:—Chain cables manufactured by Messrs. Lenox. G. Rennie, xvi. 307.**

- Chain cables, formula for size of. J. R. Napier, xvi. 308.  
 Hemp cables and chain cables suitable for vessels, table: T. Dunn, xvi. 301.  
 Machines for testing cables. See *Testing Apparatus.*  
 See *Ropes.*  
 Telegraphs: see *Telegraph Cables.* Caisson: see *Dock-gates; Foundations* (cylinder).

**CALCULATING ENGINES:—**

- Roth's Automaton Calculator. Mr. Wertheimer, iii. 68.  
 Scheutz's difference engine, and Babbage's mechanical notation, xv. 497; xvi. 422.

**CALCULATION:—"On Mental Calculation." G. P. Bidder, xv. 251.****CALICO PRINTING:—On the employment of electro-coppered cast-iron cylinders for printing on stuffs. T. Schlumberger, xxxix. 425.****CALORIC ENGINE. See Air, heated, engines.****CANALS:—General References:—**

- Character and action of waves caused by steamers on the banks of canals. W. B. Clegam, xxvi. 4; W. Pole, 17; J. F. Ure, 21; M. Scott, 28; J. F. Bateman, 28; R. Mallet, 30; J. Abernethy, 32; E. A. Cowper, 34.

Canals—General References—*continued*.

Construction of canals, by M. Mont Richer, xiv. 204.

Dimensions and sections of various canals. N. Beardmore, xxvi. 35, 36.

Experiments on the removal of ice from canals by means of lithofracteur, dynamite, and gunpowder, xlix. 383.

## CANALS, PARTICULAR :—

Aire and Calder navigation. W. H. Bartholomew, xxvi. 25; J. Abernethy, 32.

Alpines irrigation canal. G. Wilson, li. 219..

American canals. Sir C. A. Hartley, xl. 175.

America, Central. See *Atlantic and Pacific Oceans*, Junction of.

Amsterdam sea canal. C. B. Vignoles, xxix. 287; T. E. Harrison, xxxvii. 231.

Birmingham. "Description of the works on the Netherton tunnel branch of the Birmingham canal." J. R. Walker, xix. 263.—Discussion: J. Locke, xix. 277; J. R. Walker, 277, 280; G. W. Hemans, 278; C. B. Vignoles, 278; J. Cooper, 278; J. F. Bateman, 279; J. Fowler, 280; G. P. Bidder, 281.

Caledonian. Description of a steam dredging engine used on. W. Elliot, ii. (1842), 149.

— *versus* the Helder canal. G. B. W. Jackson, vi. 110.

Cavour Canal. M. Oppermann, xlv. 292.

Crapponne irrigation canal. G. Wilson, li. 218.

Exeter. "Memoir of the canal of Exeter, from 1563 to 1724." P. Chilver de la Garde; with a continuation by J. Green, iv. 90. (1 plate).—Discussion: J. Green, iv. 111; Sir J. Rennie, 111, 113; W. Cubitt, V.P., 111, 113; R. Stephenson, 112; J. M. Rendel, 113.

— "Continuation of the memoir of the canal of Exeter, from 1819 to 1830." J. Green, iv. 102. (1 plate.)

Forth and Clyde canal and Monkland canal. J. Milne, xxvi. 10, 12, 13; J. F. Bateman, 39.

France. "The eastern canal of France, for establishing a line of water communication from the Saône to the Meuse." (S.) W. B. Dawson, lv. 207 (2 plates).

Ganges. Col. W. H. Greathed, xxxv. 156.

— Headworks of the Ganges canal. Capt. R. P. Tickell, liv. 294.

— Construction of the Narora works, lower Ganges canal. Major H. H. Jones, R.E., lv. 371.

— Training works of the lower Ganges canal. Major H. H. Jones li. 363.

Gloucester and Berkeley canal. W. B. Clegram, xxvi. 1, 3, 4.

Grand canal, Ireland. "On the employment of steam power on the Grand canal, Ireland." S. Healy, xxvi. 6.

Grand Junction canal. N. Beardmore, xxvi. 38.

Herefordshire and Gloucestershire. A method of breaking ice, by forcing it upwards instead of downwards. G. Ballard, i. (1837) 18.

Holland. "Description of the Great North Holland canal; with an account of the mode of gaining land from the sea by polders, and of the art of building with fascine work, and an account of the works at Nieuwediep." G. B. W. Jackson, vi. 81. (5 plates).—Dis-

Canals, particular—*continued*.

- cussion: G. B. W. Jackson, vi. 110, 117, 123; J. Walker, 110; W. Cubitt, V.P., 111, 112, 118, 132; Hyde Clarke, 112, 118, 131; G. Rennie, 113; R. Stephenson, 115, 123, 124; Mr. Edwards, 117; Sir J. Rennie, 120, 128, 130; J. B. Redman, 123, 131; I. K. Brunel, 124; J. G. C. Curtis, 125; J. S. Russell, 129, 132, 133; G. P. Bidder, 131; J. W. Wright, 132.
- Holland. "The history of the canal of Katwyk, Holland, with a description of the principal works." The Chevalier F. W. Conrad. Translated by C. Manby, ii. (1842), 172.
- Poldervaart. Chev. Conrad, vi. 150.
- India. See *Irrigation*—India.
- Lee River navigation. N. Beardmore, xxvi. 37.
- Lestelle irrigation canal, Haute-Garonne. M. Tranié, xlii. 276.
- Marseilles canal. G. Rennie, xiv. 193; W. Pole, 202; R. W. Mylne, 211, 218; J. Murray, 215.—G. Wilson, li. 220.
- Mosel-Saar canal. H. Knobloch, xxxix. 388.
- Newry and Fathom canal. Sir J. Rennie, iv. 371; x. 281, 285.
- Rhone irrigation canal. F. Vidalin, xlviii. 315;—G. Dumont, lviii. 388.
- St. Louis canal, and the mouths of the Rhone. M. Dornès, xli. 251.
- Sirhind canal, earthwork experiments on the. J. D. Derry, Lieut. J. F. Miller, Major R. Home, and Col. J. Crofton, xli. 234.
- Soonkésala. "On the Soonkésala canal of the Madras Irrigation and Canal Company." J. H. Latham, xxxiv. 67. (3 plates).—Discussion: See *Irrigation*.
- Spain. Construction of the Henares canal: G. Higgin, xxvii. 489. Module adopted on the canal, 503. Benefits from this canal: J. F. Bateman, xxvii. 512. Irrigation canals, xxvii. 519, 520, 544, 545. Slope, 545, 549.
- Masonry dam for irrigation canal at the Laguna del Rey, Spain. J. D. Barry, xxvii. 520.
- Sluice-gates for irrigation canal, Laguna del Rey. J. D. Barry, xxvii. 521.
- Suez. Historical notice: J. Glynn, x. 369; R. Stephenson, 376. Prospects: J. Grantham, xxix. 153, 203. Notice: C. B. Vignoles, xxix. 303.
- "On the Isthmus of Suez, and the canals of Egypt." J. Glynn, x. 369.
- Discussion: J. Glynn, x. 376; R. Stephenson, 376, 380; C. Greaves, 379; F. Braithwaite, 379; F. Ayrton, 380.
- On the comparative advantages of the two systems proposed. J. R. McClean, xxiii. 164.
- Col. Sir W. T. Denison, R.E., xxvi. 442. (3 plates).—Discussion: Sir W. T. Denison, xxvi. 449, 451, 472; J. Abernethy, 449, 454, 460; J. Hawkshaw, 451, 476; R. Rawlinson, 454; D. A. Lange, 455; W. A. Brooks, 458, 460; J. M. Heppel, 464; J. Murray, 465; Sir G. B. Airy, 468; J. B. Redman, 469; T. Hawksley, 471; J. G. C. Curtis, 472.
- Size and composition of blocks of concrete. J. A. Longridge, xxv. 133.
- Lighthouse at Port Said. J. N. Douglass, lvii. 100.
- On various subjects relating to the Suez Canal. F. de Lesseps, xlv. 314.
- Currents in the Suez Canal, and their effects. F. de Lesseps, lvi. 330.
- On the bitter lakes of the Isthmus of Suez: solution of salt. F. de Lesseps, xlv. 314.
- Terneuze canal. W. Cubitt, V.P., vi. 113.



Canals, particular—*continued*.

Ulster. "Description of a portion of the works of the Ulster canal." T. Casebourne, ii. (1842), 52.

Sweden. Canals in Sweden. C. P. Sandberg, xxxix. 193.

Verdon irrigation canal. G. Wilson, li. 224.

See *Aqueducts*; *Atlantic and Pacific Oceans*, Junction of; *Irrigation*, its derivatives; *Water*, Flow of.

CANALS. See *Locks*.

Removal of ice from canals and rivers. See *ICE-BREAKING*.

Canals *versus* railways. R. C. Despard, xvii. 393, 408; N. Beardmore, 400; G. W. Hemans, 406; R. Stephenson, 406.

Lea. "Description of the improvements on the second division of the River Lea navigation; with remarks on the position of canals generally in reference to the development of their resources." R. C. Despard, xvii. 386.

Traffic of canals. R. C. Despard, xvii. 393; N. Beardmore, 400; G. W. Hemans, 406.

## CANALS, CANAL BOATS :—

Historical notice. Sir John Rennie, v. 77.

Boat made in two halves, by Mr. Watson. R. Mallet, xxvi. 29.

Boats on the Birmingham canal. J. R. Walker, xix. 263.

"Experiments of the resistance of barges moving on canals." H. R. Palmer, (T.) i. 165.

—"New canal boat experiments." J. Macneill, (T.) i. 237; J. M. Rendel, xiii. 212.

Fly boats on the Grand canal, and Royal Irish canal. R. Mallet, xxvi. 29.

Folding boat. "Description of the 'Nonsuch,' iron passage-boat, plying on the Limerick navigation, between that place and Killaloe." C. W. Williams, i. (1840), 28.

Hydraulic propeller on canals. W. G. Armstrong, xiii. 212;—E. A. Cowper, xxvi. 34. Staffordshire Canal: G. P. Bidder, xiii. 212;—G. H. Phipps, xxvi. 22.

Resistance of canal boats to traction. G. Rennie, ii. (1843), 115; G. P. Bidder, xiv. 312.

Towage by horses on Gloucester and Berkeley canal. W. B. Clegam, xxvi. 2.

## CANALS, STEAM POWER ON :—

Steam-power *versus* horse-power on canals. W. B. Clegam, xxvi. 2, 3, 4; E. L. Williams, Jun., 24; N. Beardmore, 37.

Steam propulsion on canals. G. P. Bidder, xiii. 210; R. Rawlinson, 211, 212; A. C. Hobbs, 212.—R. C. Despard, xvii. 396;—E. A. Cowper, xxvi. 34; N. Beardmore, 35, 38, 43.

Aire and Calder navigation. Paddle steam tugs: W. H. Bartholomew, xxvi. 25. Steam boats, 27; J. F. Bateman, 28. Goods trains: W. H. Bartholomew, xxvi. 27; N. Beardmore, 39; J. F. Delany, 40.

Ashby-de-la-Zouch canal. Screw steam-boat. W. Pole, xxvi. 17.

Forth and Clyde navigation, screw steam goods-lighters: J. Milne, xxvi. 10, 11, 13, 39. Screw ice-breaker, 10. Screw mineral scow, 10, 13.

Canals, steam power on—*continued*.

Gloucester and Berkeley canal: screw steam-tugs. "Results of the employment of steam power in towing vessels on the Gloucester and Berkeley canal." W. B. Clegram, xxvi. 1.—Discussion: J. Milne, xxvi. 10; E. Thomas, 14; W. B. Clegram, 16; E. L. Williams, 16; W. Pole, 17; J. F. Ure, 20; G. H. Phipps, 22; E. E. Allen, 22; E. L. Williams, Jun., 23; H. Thomas, 24; W. H. Bartholomew, 25; R. P. Brereton, 27; M. Scott, 28; J. F. Bateman, 28, 39; R. Mallet, 28, 32; J. Abernethy, 32; C. B. Vignoles, 32; F. J. Bramwell, 33; E. A. Cowper, 34; N. Beardmore, 35, 42; J. F. Delany, 40; C. J. Appleby, 40; D. Forbes, 47; C. W. Siemens, 47; Mr. Morgan, 48.

Grand canal, Ireland. Screw steam-bouts. S. Healy, xxvi. 6, 8. Screw steam-tugs, 7, 9; R. P. Brereton, 27.

Grand and Royal Irish canals. Paddle-boat. R. Mallet, xxvi. 29, 32.

Grand Junction canal. Screw steam-boat. G. H. Phipps, xxvi. 22; H. Thomas, 24; N. Beardmore, 35, 37.

Holland and Sweden. Screw steam-barges. C. J. Appleby, xxvi. 41.

Lee River navigation. Screw steam-barge. N. Beardmore, xxvi. 36, 39, 42; C. J. Appleby, 42.

New York. Steam propulsion on the canals of the State of New York. M. Lavoigne, i. 262.

Regent's canal. Inshaw's steam-tug. R. C. Despard, xvii. 396;—E. Thomas, xxvi. 14.

Severn. Steam-tugs on the Severn. E. L. Williams, xix. 529, 533.

Shropshire Union canal. N. Beardmore, xxvi. 35.

## CANALS, CANAL LIFTS AND INCLINED PLANES:—

Anderton. "Hydraulic canal-lift at Anderton on the River Weaver." S. Duer, xlv. 107. (1 plate.)—Discussion: E. L. Williams, Jun., xlv. 118, 123; E. Clark, 119; J. W. Sandeman, 120, 126; Sir W. G. Armstrong, 122; A. Giles, 122; Capt. Galton, 124; Sir J. Hawkshaw, 124; F. J. Bramwell, 125; J. Corry, 126; S. Duer, 127.

Grand Western Canal. "Description of the perpendicular lifts for passing boats from one level of canal to another, as used on the Grand Western canal." J. Green, (T.) ii. 185.

—"The canal-lifts on the Grand Western canal." J. Green, i. (1838), 26; J. M. Rendel, xiii. 210.

Monkland Canal. "Description of an inclined plane for conveying boats over a summit to and from different levels of a canal." J. Leslie, xiii. 205, 213.—Discussion: C. B. Vignoles, xiii. 209, 211; J. Gibbs, 209, 210; W. Gravatt, 209; J. Cubitt, 210; J. Hawkshaw, 210, 211; S. C. Homersham, 210; J. M. Rendel, 210; G. P. Bidder, 210; R. Rawlinson, 211, 212; H. Maudslay, 211; A. C. Hobbs, 212; W. G. Armstrong, 212; J. Leslie, 212; F. J. Bramwell, xlv. 125.

Inclined planes. J. Leslie, xiii. 212.

—Chard. On the Chard canal, Somersetshire, by Sir W. Cubitt J. Leslie, xiii. 213.

—China. In China. J. Gibbs, xiii. 209.

—Morris, U.S. On the Morris canal, U.S. J. Leslie, xiii. 206.

—Warsaw. On the Vistula at Warsaw. J. Leslie, xiii. 209; C. B. Vignoles, 209.

**CANNABIC COMPOSITION**, a new material for architectural decoration.  
B. Albano, iii. 70.

**CAOUTCHOUC**. See *Indiarubber*.

**CAPITAL AND LABOUR**. G. R. Stephenson, lxiv. 10.

**CARBONIC ACID**. See *Air*, impurities in.

— gas engine, by Sir I. Brunel. I. K. Brunel, ix. 199, 200; A. Gordon, 200, 201, 202; R. Stephenson, 200.

**CARTS**, bullock, in Brazil. W. M. Peniston, xxii. 392.

**CASK-MAKING** machinery. G. L. Molesworth, xvii. 37; G. Green, 44.  
See *Wood-working* machinery.

**CAST-IRON**. See *Iron*, cast, and its derivatives.

**CEMENTS**:—

Action of iron oxide on cement. R. Beamish i. (1837), 33.

(Cement manufacture.) Proceedings of the German Cement Makers' Union, at Berlin, February 1879, lviii. 365.

Composition of cement, Eddystone lighthouse. Colonel Pasley, i. (1837), 19.

Experiments on cements. Colonel Pasley, i. (1837), 17, 19; H. H. Price, 19; G. Lowe, 19; F. Bramah, 20; J. J. Hawkins, 20.

— at Bangalore. Surgeon E. Nicholson, xlv. 238.

Manufacture of cement and its use for water-pipes at Ischl. A. Aigner, xlii. 290.

Notes upon cement. (Regulations of the Society of Austrian Engineers and Architects), lvi. 295.

Strength of cements. G. Robertson, xvii. 418.

American cement, Rozendale. H. E. Towle, xxxii. 307.

Keene's cement, tensile strength of: J. Grant, xxv. 76; tables, 96, 109.  
Crushing strength, 108, 109.

Lithic cement. Lt-Gen. Sir C. Pasley, xi. 503; G. F. White, 507.

Medina cement, tensile strength of. J. Grant, xxv. 76; tables, 96, 108, 109.  
Crushing strength, 108, 109.

Natural cements. G. F. White, xi., 504.

Parian cement, tensile strength of: J. Grant, xxv. 76; tables, 96, 108;  
Crushing strength, 108.

Puzzuolana of St. Paul in Rome, and that of Maremma in Tuscany.  
A. Cavazzi, xlv. 363.

Roman cement. Historical notice. Sir J. Rennie, v. 35.

— Tensile strength of. G. F. White, xi. 491, 492, 497, 498, 499;—J. Grant, xxv. 76, 78; tables, 91–95, 107. Crushing strength: J. Grant, xxv. 107, 108. Objections to it: G. F. White, xi. 479. Adhesion to stones and bricks. G. F. White, 499, 507, 508; Lt-Gen. Sir C. Pasley, 503.

Santorin. On the use of Santorin earth in the construction of hydraulic works on the sea-coast. J. Prucha, xlv. 291.

**CEMENTS** used for Beams. See *Beams*.

**CEMENTS, PORTLAND CEMENT**:—

Historical notice. G. F. White, xi. 478, 506;—Maj-Gen. Sir C. Pasley, xvi. 443.

Adhesion of, to stones. G. F. White, xi. 499, 500;—W. Parkes, xxx. 18, 24.

Cements, Portland Cement—*continued.*

- Air-slaking of, E. R. N. Druce, xxv. 114; C. Baynes, 123.
- Analysis of, and the raw materials. C. Colson, xli. 141, 142.
- 'Artificial granite.' G. F. White, xi. 490.
- Crushing strength of bricks of, neat, and mixed with sand. J. Grant, xxv. 76; tables, 97.
- Employment of, for stopping leakages under water. R. Rawlinson, xxv. 114; W. Kinipple, 127.
- Expansion of, J. Walker, xvi. 439, 444; R. J. Hood, 443; C. Greaves, 443; G. R. Burnell, 444.
- "Experiments on the strength of cement, chiefly in reference to the Portland cement used in the southern main-drainage works." J. Grant, xxv. 66. (7 plates.)—Discussion: G. W. Hemans, xxv. 112; J. Abernethy, 113; E. R. N. Druce, 113, 148; R. Rawlinson, C.B., 114; G. F. White, 117; C. Baynes, 122; C. L. Francis, 123; W. R. Kinipple, 125; J. Aird, Jun., 128; Sir C. Fox, 128; G. Dines, 129; J. S. Russell, 129, 130, 134; H. Maudslay, 129; J. Jennings, 130; T. Bevan, 130; J. A. Longridge, 133; J. G. C. Curtis, 134; C. B. Lane, 135; F. J. Bramwell, 136; J. B. Redman, 141; J. F. Bateman, 142; R. P. Brereton, 143, 144, 146; J. Fowler, 144, 158; J. Coode, 144; J. Hawkshaw, 146; Sir C. A. Hartley, 150; T. D. Ridley, 153; J. Grant, 153.
- "Further experiments on the strength of Portland cement." J. Grant, xxxii. 266. (1 plate.)—Discussion: J. Grant, xxxii. 307, 325; H. E. Towle, 307; Lt.-Col. Scott, R.E., 308; F. J. Bramwell, 311; J. W. Bazalgette, 311; W. Parke, 313, 319; G. F. White, 316; J. A. McConochie, 317; Lieut. W. Innes, R.E., 319; G. H. Phipps, 324; B. Latham, 324; C. B. Vignoles, 328.
- on the Portland cement used in the Portsmouth dockyard extension works." C. Colson, (S.) xli. 125.
- on the strength of cement, and on the bending of bars. H. Gollner, liv. 290.
- Heavily-burnt Portland cement *versus* medium-burnt cement. G. F. White, xxv. 118–122. C. Baynes, 122; J. W. Bazalgette, 124; F. J. Bramwell, 138; E. R. N. Druce, 149; J. Grant, 153, 156.
- Influence of degree of calcination on its properties: G. F. White, xvii. 435.
- Manufacture of. J. Grant, xxv. 68.
- "Observations on artificial hydraulic, or Portland cement, with an account of the testing of the brick beam erected at the Great Exhibition, Hyde Park." G. F. White, xi. 478.—Discussion: Gen. Sir C. Pasley, xi. 502; J. Hawkshaw, 503; G. F. White, 504, 505; J. Gibbs, 504; W. Gravatt, 504; J. D. Hopkins, 504; J. Locke, 505; J. Francis, 505; Capt. Fitzroy, R.N., 505; J. M. Rendel, 510.
- Portland cement of Pouilly. M. Arson, xlv. 354.
- of Vassy. M. Arson, xlv. 354.
- *versus* Roman cement. J. Grant, xxv. 68, 78; W. R. Kinipple, 126; J. Aird, Jun., 128; G. Dines, 129; J. Jennings, 130.
- concrete (Thames ballast). Weight and compressive strength: table, J. Grant, xxv. 110. Strength: G. F. White, xi. 498.
- Qualities for general purposes: C. Baynes, xxv. 123.
- Regulations (in Germany) for the uniform supply and testing of, lv. 336.
- Relative specific weight and tensile strength of. J. Grant; tables, xxv.

**Cements, Portland Cement—continued.**

103, 104; E. R. N. Druce, 114; G. F. White, 117, 120; C. Baynes, 122; C. L. Francis, 123; J. W. Bazalgette, 124; T. Bevan, 131; C. B. Vignoles, 135; F. J. Bramwell, 137.

Relative strength of, made with fresh water and with salt water. J. Grant, xxv. 90; E. R. N. Druce, 113; R. P. Brereton, 143.

— mixed with sand and with ground Portland stone. F. J. Bramwell, xxv. 140.

Resistance of a layer of, to compression. J. Hawkshaw, xxii. 533.

Specification for southern main drainage works: J. Grant, xxv. 67, 111; G. F. White, 118.

— for the new south breakwater, Aberdeen: W. D. Cay, xxxix. 138, 151.

Strength of. G. F. Deacon, lviii. 13.

— as affected by the proportion of water used in gauging. J. Grant, xxv. 78, 157; T. Bevan, 132; F. J. Bramwell, 139.

— pure, and with sand. G. F. White, xi. 491, 497, 498, 499.

Tensile strength of. J. Coode, xxx. 24.

—, neat and mixed with sand, according to age: J. Grant, xxv. 71; tables, 80–90, 103, 104, 106; G. F. White, 120; table, 121; C. Baynes, 122; G. Dines, 129.

Testing of. I. J. Mann, (S.) xlvii. 248.

Uniformity of quality: J. Grant, xxiv. 182.

Use and testing of. W. Macalay, liii. 304.

Weight and measure of: G. F. White, xi. 502. Mode of testing the specific weight: F. J. Bramwell, xxv. 138.

See *Concrete*.

**CENTERING:—**

Dee bridge, Chester, (T.) i. 211; i. (1837), 35.

Dunhampstead, Earth centre of bridge at. Capt. J. Vetch, i. (1841), 137.

Lisbon, Centres for the aqueduct at. S. Clegg, Jun., i. (1841), 140.

Newcastle and North Shields railway. Laminated timber arches and stone arches, Ouseburn viaduct. B. Green, v. 225.

Pont-y-tu-Pridd, across the river Tâfe. T. M. Smith, v. 476.

Royal Border Bridge. G. B. Bruce, x. 228.

Scinde railway. Bahrun viaduct. J. Brunton, xxii. 477.

Sheffield and Manchester railway. Laminated timber arches, and stone arches, Dinting Vale viaduct. A. S. Jee, v. 218.

Stratford-le-Bow. New bridge. J. B. Redman, (T.) iii. 352, 354.

Turin. Stone bridge over the Dora Riparia, near Turin. B. Albano, (T.) i. 187.

Wellington Bridge, over the Aire, Leeds. J. Timperley, iii. 105.

Striking the centres of arches.—Slack-blocks and sand-boxes, xxxix. 319.

See *Scaffolding*.

**CENTRIFUGAL FANS.** See *Fans*, Centrifugal.

**CENTRIFUGAL PUMPS.** See *Pumps*, Centrifugal.

**CESSPOOLS.** See *Sewage*.

**CHAINS**:—On the calculation of pitch chains. K. Keller, lv. 406.

Chain-cables. See *Cables*.

**CHALK**. Analysis of grey chalk, C. Colson, xli. 141. Raw chalk, 142. See *Moisture*.

**CHALK FORMATION, WATER IN**:—

"Absorbent power of chalk and its water contents under different conditions." D. T. Ansted, ix. 360.—Discussion: Prof. Ansted, ix. 369, 374; F. Braithwaite, 369; J. Dickinson, 369, 374; Dr. Mantell, 371; P. W. Barlow, 373; J. Hawkshaw, 373.

"Bourne stream, river Wandle." F. Braithwaite, xx. 193; J. Simpson, 211; J. Gibbs, 213; T. Hawksley, 214; J. Fenton, 217; J. Evans, 227.

Bournes in the chalk wolds, Yorkshire. J. R. Mortimer, lv. 254; outflow, 255.

Chalk of the London basin. J. Prestwich, xxxvii. 113. See *Geology*; *Water supply*, sources of; *Wells*.

Fissures in the chalk. R. W. Mylne, i. (1839), 62;—Dr. Buckland, ii. (1842), 159; F. Braithwaite, 162; xiv. 48, 49, 73, 74, 88, 515;—P. Bruff, xix. 38;—J. G. Gamble, xliii. 201; S. C. Homersham, 205; H. Hayter, 223;—J. Lucas, xlvii. 73, 74, 76, 115; S. C. Homersham, 120; J. Evans, 122; E. Easton, 139; J. W. Grover, 153; C. Greaves, 163.

Flow of water through fissures in the chalk. B. Latham, xlv. 73; Prof. D. T. Ansted, 96.

Streams, or bournes from chalk. J. Dickinson, ix. 371;—Rev. J. C. Clutterbuck, xiv. 67; J. Dickinson, 71;—J. Evans, xx. 227;—J. Lucas, xlvii. 77, 86; Rev. J. C. Clutterbuck, 116; S. C. Homersham, 119, 121; J. Evans, 122, 123; B. Latham, 132; E. Easton, 136; Rev. D. S. Halkett, 165; W. Topley, 166.

Water supplied chiefly through fissures and beds of flints in the chalk. F. Braithwaite, xiv. 66, 67; N. Beardmore, 70; J. Prestwich, Jun., 77, 90; J. Hawkshaw, 88; J. Simpson, 93.

Water level in the chalk, Yorkshire. J. R. Mortimer, lv. 253, 255. See *Water supply*, its derivatives.

**CHARCOAL**:—

Deodorising power of animal charcoal. E. Beanes, xxxv. 79; G. H. Ogston, 97; H. Davy, 102.

Drying charcoal, xlii. 372.

Electricity by the combustion of charcoal. W. R. Grove, xvi. 403.

Filtering power of charcoal. E. Byrne, xxvi. 547.

Manufacture of charcoal. "On an economical method of manufacturing charcoal for gunpowder." G. Haycraft, l. 105. (1 plate.)—Discussion: G. Haycraft, l. 108, 110; E. A. Cowper, 108; Sir W. G. Armstrong, 108; Major Wardell, 108; S. Sharp, 110.

See *Fuels*; *Peat-fuel*.

**CHESIL BANK**:—

Composition. J. B. Redman, vii. 201;—J. Coode, xii. 521–524, 556.

Derivation of the name. J. B. Redman, xi. 201, 222.

"Description, with remarks upon its origin, the causes which have contributed to its formation, and upon the movement of shingle generally." J. Coode, xii. 520. (1 plate.)—Discussion: J. Coode, xii. 547, 554, 555; C. Babbage,

**Chesil bank—continued.**

547; G. P. Bidder, 547; Sir J. Rennie, 549; J. Hawkshaw, 550; J. Gibbs, 551; G. Rennie, 552; Capt. Fitzroy, R.N., 553; Prof. Airy, 554; J. M. Rendel, 557.

**Formation.** J. T. Harrison, vii. 350; N. Beardmore, 362;—J. B. Redman, xi. 201, 206; Sir O. Lyell, 205; G. Rennie, 206; J. Coode, 220;—J. Coode, xii. 526, 528, 542, 554; J. Hawkshaw, 550; J. Murray, 550; Sir G. B. Airy, 554;—Sir G. B. Airy, xxiii. 226, 238; C. B. Vignoles, 231; J. S. Russell, 236; J. Coode, 240, 252; J. B. Redman, 253; J. Hawkshaw, 236;—G. H. Kinahan, xlii. 217.

**Historical notice.** J. B. Redman, xi. 201;—J. Coode, xii. 524, 547.

“Origin, and the relation of the existing beaches to past geological changes, independent of the present coast action.” Prof. J. Prestwich, xl. 61. (1 plate.)—Discussion: T. M. Reade, xl. 80; W. Topley, 82; Rev. O. Fisher, 83; J. Dunning, 85; Capt. Burstal, R.N., 86; Admiral Spratt, 86, 88; H. B. Mackeson, 87; F. J. Bramwell, 87; E. A. Cowper, 89; Sir G. B. Airy, 89; J. T. Harrison, 92; W. Whitaker, 96; J. B. Redman, 99; J. N. Douglass, 102; F. G. Wynne, 103; Sir J. Coode, 105; Prof. J. Prestwich, 109.

**CHIMNEYS:—**

**Chimneys for gas works.** H. E. Jones, xl. 5.

“Description of the method employed for repairing a chimney 120 feet high, at the cotton mill of Messrs. Couper, Glasgow.” J. Colthurst, iii. 223.

**Draught of chimneys.** E. Cornet, l. 268.

**Height of chimneys.** F. Guzzi, liii. 350; Prof. R. Ferrini, liii. 351.

**Load on base.** C. Cowper, x. 242.

**Péole's formula for draught in chimneys.** W. W. Phipson, lv. 132.

**Scaffolding for the construction and the repair of high chimneys.** P. Journet, iii. 218.

**Vibration of chimneys by the force of wind.** E. A. Cowper, xxvii. 100.

**CHRONOMETERS.** See *Clocks and Chronometers.***CLAY:—**

**Absorbent and retentive powers of English clays.** J. B. Denton, xxi. 54  
analysis of gault clay, 51.

**Analysis of calcareous clay, River Jumna.** I. Bell, xxviii. 332.

**Analysis of gault clay and wet clay.** C. Colson, xli. 141.

**Moisture in clay.** J. Colthurst, iii. 165.

See *London Clay.*

**CLINOMETER.** Improved Clinometer, by R. B. Grantham, v. 480.

“Description of the prismatic clinometer, a new pocket instrument for measuring vertical angles.” W. Pole, xi. 23.

**CLOCKS AND CHRONOMETERS:—**

**Historical notice of clocks.** Sir J. Rennie, v. 105.

**Chronometer springs: time of oscillation; elasticity.** R. Mallet, xxix. 61.

“Construction and regulation of clocks for railway stations.” B. L. Vulliamy, iv. 63.—Discussion: F. Whishaw, iv. 71; J. Horne, 72, 73, 75; B. L.

Clocks and Chronometers—*continued*.

Vulliamy, 72, 73, 76; J. Walker, 72, 76; F. Giles, 73; R. Davison, 74; E. J. Dent, 74; W. Brockedon, 75; G. P. Bidder, 75; C. B. Curtis, 76.

"Laws of isochronism of the balance-spring, as connected with the higher order of adjustments of watches and chronometers." C. Frodsham, 224.  
—Discussion: J. Farey, vi. 239, 248; B. L. Vulliamy, 246; C. Frodsham, 251.

CLOCKWORK for lighthouse lanterns. D. M. Henderson, xxviii. 30.

CLOTH MANUFACTORIES. Production of gas from the waste. E. Schwamborn, xlvii. 361.

## COAL, COKING, AND DISTILLATION OF:—

Coking properties of the coals of Saarbrücken. Dr. A. Schondorff, xliii. 397.

"Distillation of coal, the utilisation of the resulting products, and the manufacture of coke." M. Pernolet, xxiii. 443, 457. (1 plate.)—Discussion: C. W. Siemens, xxiii. 452; E. A. Cowper, 454; Dr. Crace Calvert, 454; T. Lambert, 455; J. Church, 455; A. Penny, 456; H. P. Stephenson, 457; M. Pernolet, 457.

## COAL, COMPOSITION, COMBUSTION, AND EVAPORATIVE POWER OF:—

Calorimetric trials and analyses of coals and lignites. A. Scheurer-Kestner and C. Meunier-Dollfus, xliii. 396.

Classification and composition of South Wales coals, viii. 98. Cost of getting coal, 106. Evaporative power: J. Richardson, viii. 93. Table, 93. D. Gooch, 110.

Combustion. A. Murray, iii. 331;—J. G. Bodmer, v. 362;—A. Murray xi. 399, 403; R. Stephenson, 400; I. K. Brunel, 402; C. May, 402; J. S. Russell, 403; T. Hawksley, 405; S. C. Homersham, 407;—J. Simpson, Jun., xiii. 386;—W. Woodcock, xiv. 1;—D. K. Clark, xvi. 4; A. Slate, 34.

— in portable engines. W. Exall, xvi. 34.

— in locomotives. See *Locomotive Boilers*.

Composition of English coals, table of South Wales coal. J. Richardson, viii. 105.

Evaporative value of German steam coals, i. 263.

Heating power of, tested by evaporation of water. J. Richardson, viii. 96; R. Stephenson, 110.

Physical conditions of combustion of. D. K. Clark, xix. 546, 556, 557; J. A. Longridge, 576; C. Greaves, 581.

"Properties and chemical constitution of, with remarks on the methods of increasing its calorific effect, and preventing the loss which occurs during its combustion." C. Hood, i. (1840), 62.—Discussion: J. Parkes, i. (1840), 66; J. Field, 67; A. Pellatt, 67; J. Farey, 67.

Slow combustion of, under pressure. J. Henin, iv. 399.

Use of powdered, as fuel in iron-heating furnaces. T. R. Crampton, lii. 205; H. Aydon, 209.

Weight of the bushel of. J. S. Enys, (T.) iii. 450; i. (1838), 3, 6; i. (1840), 8.

See *Fuels*; *Smoke*, Prevention of.



## COAL, SHIPMENT OF (HOISTS AND DROPS):—

- Coal-hoists, Silloth dock. J. Abernethy, xxi. 328.
- *versus* coal-drops; or, low-level *versus* high-level. J. Abernethy, xxi. 327, 328.
- Drops, "Description of, used by the Stanhope and Tyne Railroad Company for the shipment of coals at South Shields." T. E. Harrison, (T.) ii. 69; i. (1837) 37.
- "Account of, used for the shipment of coals at Middlesbro'-on-Tees, with a short description of the town and port of Middlesbro'." G. Turnbull, v. 248. (3 plates.)
- Tube-drop and ladder-drop. E. A. Cowper, xviii. 508; T. E. Harrison, 513.
- Coal-drops and shoots, South dock, Swansea. J. Abernethy, xxi. 317, 332; Sir W. G. Armstrong, 338.
- *versus* spouts. T. E. Harrison, xviii. 497, 498.
- Historical notice of methods of shipment of coals, northern coal-fields. G. Turnbull, v. 250, 252;—T. E. Harrison, xviii. 496, 519.
- Hydraulic crane for shipping coal at Glasgow. W. G. Armstrong, ix. 376, 382.
- coal-lift at Goole. C. Wawn, xlix. 40.
- coal-hoists: Sir W. G. Armstrong, i. 81, 83.
- coal-discharging cranes. Sir W. G. Armstrong, i. 81.
- "— apparatus for loading minerals from railway wagons into ships." (S.) W. H. Thomas, xlv. 217.
- Rohde and Schmitz's automatic coal-tipping apparatus, lvii. 407.
- Spouts. Shipment of coals by, at Tyne docks: T. E. Harrison, xviii. 496, 519; E. A. Cowper, 508; J. Hawkshaw, 522. Inclination of spouts: T. E. Harrison, 498; E. A. Cowper, 508.
- Great Grimsby docks. E. H. Clark, xxiv. 49.
- Staithe, at Stockton and Middlesborough. J. Taylor, xxiv. 64.
- Various methods of shipping coals. T. E. Harrison, xviii. plate 8.

## COAL, WASHING OF:—

- Coal and mineral washing machine. S. Edwards, xvii. 213.
- Coal washing and sorting machine. M. Evrard, xl. 323.
- "— apparatus at Besèges, France." (S.) J. B. Marsaut, lv. 259.

## COAL (ANTHRACITE):—

- Anthracite tried as a fuel in locomotives. J. Richardson, viii. 103; R. Stephenson, 112; E. Woods, 112.
- "Combustion of anthracite, and its value as a fuel for steam-engine and other furnaces." Dr. A. Fyfe, i. (1841), 154.—Discussion: G. Lowe, i. (1841), 156.
- Composition of anthracite. J. Glynn, viii. 118. Heat and products of combustion of Jones's anthracite: H. M. Lefroy, xii. 339.
- Fire-grate for burning anthracite. R. W. Perkins, liv. 154; J. F. Flannery, 159.
- Mechanical preparation of anthracite; sizes of broken and screened anthracite. R. P. Rothwell, xlvii. 381.

## COAL FIELDS; COAL MEASURES:—

- Available coal measures in the British Islands. E. Bainbridge, xxxiv. 44. Map, plate 21.

Coal fields; coal measures—*continued*.

Exhaustion of coal seams in England. T. Hawksley, xxi. 102.

Asturias. Coal basin of the Asturias. M. Grand, xl. 349.

Dean, forest of, coal-field. T. Sopwith, i. (1840), 49.

Lincolnshire. "On a deep-boring for coal, at Scarle, Lincolnshire; and its bearing on the question of the easterly limit of the Yorkshire coal measures beneath the newer formations." Prof. E. Hull, xlix. 160. (1 plate.)—Discussion: G. R. Stephenson, xlix. 169; Prof. E. Hull, 169, 172; W. Hackney, 169; D. Adamson, 169; E. Bainbridge, 170; H. A. Allport, 172.

Midlothian. Plan of the Midlothian coal-field, with section. G. Buchanan, v. 338.

Newcastle coal measures, section of. J. Richardson, vi. 176.

Rhondda valley: coal measures. R. Price Williams, xxviii. 146.

Russia. Coal in Russia. W. Islavine, xlii. 341.

South-western coal-field. Dr. Buckland, ii. (1842), 139; J. Richardson, vi. 180; viii. 82.

Spain. The coal-field of Espiel and Belmez. R. O. y Vidal, xlix. 353.

Sweden. On the coal-bearing formation of Scania in Sweden, and the island of Bornholm. H. Hauchecorne, xlii. 340.

Wales, South. "The coal-field and the coal of South Wales." J. Richardson, viii. 82.—Discussion: D. Gooch, viii. 110; R. Stephenson, 110, 113; E. Woods, 112, 113; W. Harding, 112; J. Glynn, 113, 115; J. S. Enys, 114; Dr. L. Playfair, 114.

Yorkshire, East: stratification of coal measures. Prof. E. Hull, xlix. 162, 169, 172; D. Adamson, 169; E. Bainbridge, 170; H. Allport, 172.

COAL GAS. See *Gas*, Coal.

## COAL MINES, EXPLOSIONS IN:—

Burning coal mine at Kidder Slope. M. Coryell, xxxix. 411.

"Comparative view of the recorded explosions in coal mines." W. West, x. 1.—Discussion: J. Glynn, x. 22.

Effluence of fire-damp in coal mines as affected by atmospheric pressure. Hr. Nasse, lvii. 383.

"Explosion of fire-damp which occurred in the Eaglesbush, or Eskyn Colliery, near Neath, South Wales, on the 29th of March, 1848." J. Richardson, viii. 118. (1 plate.)—Discussion: W. Smyth, viii. 129, 134; J. Glynn, 133, 134, 135; Mr. Taylor, 134; I. K. Brunel, 134; J. Farey, 136; R. Stephenson, 136; C. Manby, 137.

— in a sinking at Niederölsnitz. H. Kühn, xlvii. 386.

— of coal dust. Haton de la Goupillière, lvi. 347.

Explosions by sudden escape of gas. J. A. Longridge, xvii. 12.

Fire-damp explosions in collieries, xl. 321.

Report to the commission for discovering the best means of preventing explosion of fire-damp, 1878. Haton de la Goupillière, lvi. 347.

Velocity of ignition of air and fire-damp. Prof. M. E. Mallard, xliii. 421.

COAL MINES—Government inspection. J. Gibbs, xii. 306, 310; R. Stephenson, 306; H. Mackworth, 310.

Legislation. M. Dunn, vi. 184; R. Stephenson, 186, 203; J. Locke, 191; Dr. Buckland, 195; Sir H. De la Bèche, 204; N. Wood, 204; F. Forster, 206; J. Murray, 209.

**COAL MINES, LIGHTING OF :—**

- Lighting by gas. A. Wright, xvii. 9; J. A. Longridge, 11; E. M. Perkins, 12; T. Hawksley, 13; R. Stephenson, 15.
- Safety lamps, historical notice. J. Richardson, vi. 166; R. Stephenson, 183, 211; J. Murray, 208; F. Forster, 210.
- Use of safety lamps. H. Mackworth, xii. 304.
- Theory of safety lamps. Prof. M. E. Mallard, xliii. 423.
- Biram's miner's lamp. C. Manby, viii. 139. Compared with the Davy lamp and with candles, 140.

**COAL-MINES—SHAFT-SINKING :—**

- Boring of the coal-pit Deutscher Kaiser. Herr Reve, lviii. 399.
- Completion of No. 1 shaft of the Rheinpreussen coal pit. M. Wagner, lvii. 378.
- Deep-sinking for coal at Peremba in Upper Silesia. H. Schantz, xlv. 287.
- Employment of an iron caisson for sinking under a solid shaft-head at Grostadeln, near Leipzig. C. W. Schulze, lv. 414.
- Experiment in shaft-sinking by the diamond borer (Saarbrücken), xlv. 351.
- Kind-Ohaudron system of sinking shafts through water-bearing strata, without the use of pumping machinery." E. Bainbridge, xxxiv. 43. (2 plates.)—Discussion: E. Bainbridge, xxxiv. 61, 63, 65; T. J. Bewick, 61; J. L. Thomas, 61; J. Cochrane, 63; G. W. Hemans, 63; W. Shelford, 64; G. B. Bruce, 64; T. Wynne, 64; A. Chambers, 64; C. J. Appleby, 65.
- Machine boring in shaft-sinking (Westphalia), xlii. 292.
- Sinking and tubbing, or coffering of pits, as practised in the coal districts of the north of England." R. T. Atkinson, ii. (1842), 170.
- through water-bearing strata by the ordinary process, by M. Levy. E. Bainbridge, xxxiv. 48, 58.

**COAL MINES, TEMPERATURE OF :—**

- Eaglesbush colliery. J. Richardson, viii. 126.
- Monkwearmouth mine. J. Murray, vi. 207.

**COAL MINES, VENTILATION OF :—**

- Air passing through thoroughfares of given sections. Eaglesbury colliery: W. P. Struvé, x. 27. Cwm Avon works, 28.
- required for ventilating fire-damp. W. P. Struvé, x. 23; J. K. Blackwell, 41.
- allowed for ventilation in various mines: J. Richardson, xii. 273, 293, 294. Air required by one man, 278, 279; by one horse, 280; total per man, 280. Air required for one candle, 276.
- Centrifugal ventilators. Guibal fan. G. J. Morrison, xlv. 40. Increased rarefaction by combination of centrifugal ventilators (Guibal fan and Lambert fan). J. Henin, lv. 418.
- Choke-damp. J. Richardson, xii. 282.
- Composition of the return air-currents in the Saarbrücken collieries. A. Schondorff, xlv. 348.
- Eudiometer. J. Richardson, xii. 273, 281.
- Fire-damp: J. Richardson, xii. 283. Analysis, 285. Chemical diagram of its explosion, 286. Quantities discharged in mines, 295. After-damp, 286.

Coal mines, ventilation of—*continued.*

Formula for the velocity of the current. T. Hawksley, vi. 192.

Furnace ventilation: J. Richardson, vi. 171; R. Stephenson, 188; N. Wood, 193. Column of heated air, with examples: W. P. Struvé, x. 30, 55; J. Phillips, 39. Measurement of the drag: H. Mackworth, xii. 298. Mixture of vapour with the upcast current, xii. 300; R. Stephenson, 308; —N. Wood, xiii. 413, 414.—G. J. Morrison, xliv. 37.

Gases evolved in coal mines. J. Richardson, vi. 161.

Lemielle's ventilator. G. J. Morrison, xliv. 38;—L. Laguesse, li. 346.

Natural brattice. J. Hann, x. 52.

Natural ventilation. H. Mackworth, xii. 298, 304, 305, 309, 310; R. Stephenson, 308.

Notice of the ventilation of the Eaglesbush coal mine, &c. J. Richardson, viii. 126.

"Pneumatics of mines." J. Richardson, xii. 272.—Discussion: A. Gordon, xii. 297, 309; H. Mackworth, 297, 308, 309; J. Gibbs, 306, 310; R. Stephenson, 306; J. Simpson, 311.

Principle of ventilation, by M. Dunn, viii. 135.

Reciprocating ventilators:—Ventilating machine. J. Horne, i. (1837), 42. Struvé's mine ventilator, Eaglesbush colliery. W. P. Struvé, x. 38, 43, 57; F. Forster, 49; E. Hopkins, 48;—H. Mackworth, xii. 302;—G. J. Morrison, xliv. 37.

Relative efficiency of furnace, steam jet, and mechanical ventilation. H. Mackworth, xii. 303.

Steam-jet, ventilation by. W. P. Struvé, x. 35, 56; J. Darlington, 49; T. E. Forster, 51, 53; G. Gurney, 51, 53, 54; A. Gordon, 53; H. Mackworth, xii. 301.—G. J. Morrison, xliv. 38, 70.

Total air required for ventilation: J. Richardson, xii. 290; tables, 291; rules, 293; H. Mackworth, 297, 306, 309; R. Stephenson, 307, 303.

Twelve-metre Guibal fan. (Centrifugal *versus* piston ventilator). L. Laguesse, li. 346.

Ventilating shafts in coal stores. H. Henning, li. 3:9.

"Ventilation of mines." J. Richardson, vi. 160. (4 plates.)—Discussion: M. Dunn, vi. 183; J. Taylor, 184, 190; R. Stephenson, 186, 196, 205, 210; J. Taylor, Jun., 188; Mr. Perkins, 189; Gen. Pasley, 190; J. J. Hawkins, 190; J. Locke, 191; T. Hawksley, 191; Mr. Horne, 192, 196; N. Wood, 193, 196, 203, 204, 205; Dean of Westminster (Dr. Buckland), 194, 203, 205; Sir H. De la Bèche, 196, 204; F. Forster, 205, 210, 212; J. Murray, 207, 212.

— of the Shut End Colliery, Staffordshire. B. Gibbons, vi. 197.

"— of collieries theoretically and practically considered." W. P. Struvé, x. 22. (1 plate.)—Discussion: F. Forster, x. 45, 52, 53; Dr. N. Arnott, 46, 54; E. Hopkins, 48; J. Darlington, 49; C. Manby, 51, 55; G. Gurney, 51, 53, 54; J. Hann, 52; A. Gordon, 53; C. May, 54; W. P. Struvé, 55.

— by pneumatic hoist at Epinae collieries. Z. Blanchet, lviii. 380.

Water-blast ventilation. H. Mackworth, xii. 303.

## COAL-MINING:—

"Coal-getting machinery as a substitute for the use of gunpowder." C. J. Chubb, xxviii. 118.—Discussion on the two preceding Papers: C. J.

Coal-mining—*continued*.

Chubb, xxviii. 122, 134, 149; W. Y. Craig, 123; J. T. Woodhouse, 127; S. P. Bidder, Jun., 128, 134, 153; G. Jones, 128, 129; R. Mallet, 129, 136; N. Beardmore, 129; W. Smyth, 129; H. Johnson, 131; A. Lupton, 131, 134; F. J. Bramwell, 134, 135; C. W. Siemens, 141; H. Grissell, 142; G. P. Bidder, 143; R. Price Williams, 146; G. H. Phipps, 147; T. D. Steel, 148; J. Coe, 148; C. H. Gregory, 155.

Coal-cutting machine at Polnisch Ostrau. J. Mayer, lii. 362.

— Machine *versus* hand labour. J. Mayer, lii. 362.

"Coal mining in deep workings." E. Bainbridge, xxx. 340.—Discussion on the two preceding papers: G. R. Stephenson, xxx. 405; J. Knowles, 406; E. Bainbridge, 407. (1 plate.)

Compressed-air machines for underground service:—Haulage and pumping in collieries near Sheffield. H. Robinson, xlix. 17. Haulage, Ryhope Colliery, 18; table, 27. Haulage and coal-cutting, Gartsberrie, 19. Haulage, Powell Duffryn, 19.

"Machines employed in working and breaking-down coal, so as to avoid the use of gunpowder." S. P. Bidder, xxviii. 113. (1 plate.)

Methods of working the Dade coal mines. T. R. Evans, lvi. 346.

Pneumatic hoist for raising coal at Epinac collieries. Z. Blanchet, lvii. 380.

"Relative safety of different modes of working coal." G. Fowler, xxx. 323. (1 plate.)

Submarine coal-mines. J. Prestwich, xxxvii. 133; Warrington Smyth, 150.

Traction by chain and rope in the Von der Heydt Colliery. C. von Webern, li. 322.

Working of highly inclined coal seams of great thickness at Dombrowa in Poland. M. Joukowsky, xlii. 346.

— of thick seams of lignite in Bohemia, xlvii. 383.

## COAL-MINING—WINDING ENGINES:—

Adhesion of winding rope for collieries. L. Trassenster, lvii. 408.

Notes on winding and other machinery, and the arrangement of shafts in English collieries. H. Broja, xl. 323.

Steam-aided reversing gear for winding and other engines. A. Stévant, xlvii. 404.

Use of endless ropes for colliery winding. L. Trassenster, lvii. 407.

— flat drums for winding round metallic mine-ropes. C. Demanet, lvii. 411.

Winding engines at the Adalbert shaft at Pfibram, in Bohemia. J. Norak xli. 270.

## COAL-TRADE:—

Europe. Production and consumption of coal in Europe and America. V. Bouhy, xliii. 393.

Great Britain. E. E. Allen, xiv. 342.

— Table of coal produced in Great Britain and Ireland in 1855. J. Richardson, viii. 109.

London, Port of. R. C. Despard, xvii. 395; N. Beardmore, 401; J. B. Redman, 408; T. E. Harrison, 409.

Middlesbro'-on-Tees. G. Turnbull, v. 254.

**Coal trade—continued.**

Prussia. Production of coal, iron, and steel in the Prussian States in the year 1874. xliii. 390.

Shields, South. T. E. Harrison, xviii. 502.

Sunderland, Port of. J. Murray, vi. 256.

Sweden. Production of coal in Sweden in 1876. H. Ekenstamm, l. 281.

**COAST, ENGLISH:—**

“Observations on the causes that are in constant operation tending to alter the outline of the English coast, to affect the entrances of the rivers and harbours, and to form shoals and deeps in the bed of the sea.” J. T. Harrison, vii. 327. (2 plates.)—Discussion: J. Green, vii. 360; J. F. Bateman, 361; J. T. Harrison, 361, 362; G. Rennie, 361; N. Beardmore, 361; J. S. Russell, 363.

Dungeness. Reclamation at Dungeness, south coast. J. B. Redman, xi. 173; xxiii. 256.

“East coast, between the Thames and the Wash estuaries.” J. B. Redman, xxiii. 186. (1 plate.)—Discussion: J. B. Redman, xxiii. 225, 253; Prof. Airy, 226, 237; C. H. Gregory, 229; C. Vignoles, 230, 254; Sir J. Rennie, 231; Capt. Burstal, R.N., 233; J. Hawkshaw, 235; J. S. Russell, 236; J. Coode, 239, 252; P. Bruff, 242; J. Murray, 245; W. A. Brooks, 248; J. S. Valentine, 249.

—Deposit of silt on the fens of the east coast. J. Murray, xx. 320.

—Erosion of east coast by the waters of the North Sea. J. Murray, xx. 319, 320, 369; R. Rawlinson, 361.

—General depression of the east coast. T. E. Harrison, xviii. 491, 492.

Goodwin sands, origin of, by Bishop Latimer, xlix. 138.

Harwich. Changes in the coast about Harwich harbour. J. G. C. Curtis, xx. 21.

—Landguard Common, formation of shingle at. Sir G. B. Airy, xxiii. 238; xl. 90.

Humber. Formation of Sunk Island in the estuary of the. J. Oldham, xxi. 457.

Hythe. Denudation of the foreshore. H. B. Mackeson, xl. 87.

Iale of Wight. Landslips at the Undercliff. W. Rickman, i. (1840), 85.

Kent, coast of, action of the sea. J. Elliott, jun., vi. 466; Capt. D. O'Brien, 478.

Lincolnshire. Abrasion of shore by the flood tide. W. Shelford, xxviii. 516.

Norfolk, changes in the coast of: general lowering of the sea-level. P. Bruff, xx. 358.

Portland Bill. Raised beach. J. Prestwich, xl. 66.

Portland, West Bay: encroachments of the sea. J. T. Harrison, vii. 346; xl. 92:—J. Coode, xii. (Plate 2.)

Shetland Island: Action of the sea on the coast. J. Murray, xx. 368.

“South Coast. Alluvial formations and the local changes of the south coast of England.” J. B. Redman, xi. 162. (1 plate.)—Discussion: J. B. Redman, xi. 205, 206, 222; W. Newton, 205; Sir W. Cubitt, 205; Sir C. Lyell, 205; G. Rennie, 206; Capt. Sir E. Belcher, 208, 213; Capt. O'Brien, 208, 219; R. Smith, 212; J. S. Russell, 212, 221; S. B. Howlett, 213; J. Wilson, 213; J. Wright, 214; W. B. Adams, 215; J. Price, 216; J. Coode, 216, 218, 220; Mr. Deane, 217, 219; S. C. Homersham, 219; J. Hawkshaw, 219; T. Webster, 220; G. Rennie, 220; J. M. Rendel, 222.

Coast, English—*continued*.

South Coast. Sand-hills, or "dunes," on the south coast. J. B. Redman, xi. 194, 196; Capt. D. O'Brien, 210.

Spurn Point. "Encroachments of the sea from Spurn Point, Flamborough Head, and the works executed to prevent the loss of land." (S.) R. Pickwell, li. 191. (1 plate.)

— Threatened breach through Spurn Point. E. H. Clark, xxiv. 52, 59; J. Coode, 54; Sir E. Belcher, 54; J. Fowler, 60.

Weymouth. Shambles shoal, off Weymouth. W. Deane, xi. 217.

Yorkshire. Waste of the sea-board of Holderness, Yorkshire coast. J. Paton, xxi. 456.

See *Chesil Bank*; *River*; *Shingle*, movements of.

## COASTS, FOREIGN:—

Calabria. Torrents on the coast of the Ionian sea, between Reggio and Assi, in the Province of Calabria Ultra. Chev. G. Amenduni, lv. 364.

Danube, recent changes along the sea-coast of the delta of the. Sir C. A. Hartley, xxxvi. 214.

Norway and Sweden: J. Murray, xx. 315. G. P. Bidder, 335, 371.

## COBALT, electrolysis of. A. Gaiffe, lv. 438.

— and nickel, on the production of large castings of. C. Winkler, xlix. 365.

## COFFERDAMS:—

Historical notice. Sir J. Rennie, v. 42.

Cofferdams for foundations. J. Gaudard, l. 117.

Constructing in water without cofferdams. J. Dixon, li. 151; E. Woods, 154; H. Prince, 154; R. Aitken, 154; W. J. Doherty, 156. See *Concrete* in construction.

Formation of a cofferdam with bags of clay and tow waste. Mr. Gibbs, i. (1837), 35.

Iron *versus* wood. G. W. Hemans, xxxi. 17; J. Phillips, 18; J. B. Redman, 23.

Peat moss for puddling cofferdams. W. J. Doherty, li. 138, 140.

Poirel's system of cofferdam. Sir J. Rennie, xiv. 38.

Principle of construction. A. Giles, li. 151; H. Hayter, 153; G. B. Bruce, 153; W. J. Doherty, 155; G. R. Stephenson, 156.

Securing air-lock doors in sinking caissons or cofferdams by compressed air. A. Heinercheidt, lv. 354.

Aberdeen harbour. J. Abernethy, xxxi. 28.

Athlone bridge. Lt.-Col. H. D. Jones, viii. 299, 302, 303.

Chey-Air bridge, Madras railway. E. Johnston, xxiv. 185.

Dublin. North quay. B. B. Stoney, li. 159.

— New bridge. B. B. Stoney, li. 160.

Gravesend Terrace pier: cylindrical cofferdam. J. B. Redman, iv. 231.

London. East London railway: cofferdams at London Docks. H. Hayter, li. 152.

— "Houses of Parliament, description of the cofferdam at the site of the." G. S. Dalrymple, i. (1840) 18.

— "Account of the cofferdam, the syphons, and other works constructed in consequence of the failure of the St. Germain's sluice of the Middle Level drainage." J. Hawkshaw, xxii. 497, 499, 509. (3 plates.)

## Cofferdams—continued.

- Mauritius railway. Grand River viaduct : cofferdams for foundations of piers. W. Ridley, xxv. 237.
- Missouri. Glasgow bridge over the : cofferdams for the foundation. C. Sooyamith, lvii. 328.
- Montreal. Victoria bridge, cofferdam for the piers. R. Stephenson, xiv. 38.
- Poldervaart canal. Sand cofferdam for bridge over the Poldervaart, Amsterdam-Rotterdam railway. Chev. F. W. Conrad, vi. 153.
- Ribble. "Description of a cofferdam, adapted to a hard bottom, used in excavating rock from the navigable channel; designed for the Ribble navigation." D. Stevenson, (T.) iii. 377.
- "Description of a cofferdam used in excavating rock from the navigable channel." D. Stevenson, i. (1841), 18.
- Rotterdam. Accident to a caisson at the Willems bridge over the River Nieuwe Maas at Rotterdam. (Cofferdam for restoring a displaced caisson.) D. A. Wittop Koning, xlviii. 299.
- Stratford-le-Bow, cofferdam for New Bridge. J. B. Redman, (T.) iii. 350.
- Thames. "Description of the cofferdams used in laying the lines of water-pipes between Twickenham and Richmond crossing the river Thames." G. J. Munday, xiv. 32.—Discussion: G. J. Munday, xiv. 37; W. B. Hack, 37; R. Stephenson, 37, 41; Sir J. Rennie, 38, 40; J. Hawkshaw, 39; J. Simpson, 39, 41; R. Rawlinson, 41; N. Beardmore, 41.
- "Description of the cofferdams used in the execution of No. 2 contract of the Thames embankment." T. D. Ridley, xxxi. 3. (3 plates.)—Discussion: C. B. Vignoles, xxxi. 17, 31; G. W. Hemans, 17; J. Phillips, 18; G. B. Bruce, 19; F. J. Bramwell, 19; A. Ogilvie, 20; N. Beardmore, 20; T. E. Harrison, 22; J. B. Redman, 23; G. Furness, 24; T. D. Ridley, 24; Col. Clarke, R.E., 26; C. Neate, 27; J. Abernethy, 28; W. A. Brooks, 29; R. P. Brereton, 29.
- Twced Royal Border bridge cofferdam. G. B. Bruce, x. 221.
- Victoria Embankment, wrought-iron caissons. E. Bazalgette, liv. 12; 25; J. Abernethy, 27; Sir J. Bazalgette, 31. Sinking the caissons: E. Bazalgette, liv. 15; W. Shelford, 28; Sir J. W. Bazalgette, 31; J. W. Johnson, 50; G. H. Tait, 53. Transverse stress on the caissons: W. Bell, xxxiii. 102.
- Iron cofferdams *versus* timber cofferdams. E. Bazalgette, liii. 18; J. Abernethy, 27; W. J. Doherty, 49.
- Westminster Bridge. "A description of the cofferdam round the 13 and 14-feet piers of Westminster Bridge." Lieut. F. Pollock, i. (1839), 66.
- Wylam. Cofferdam, for piers of Wylam bridge. W. G. Laws, lvi. 266.

## COFFERDAMS, FOR DOCK WORK :—

- Avonmouth dock. J. Brunlees, li. 153.
- Birkenhead. Cofferdam across the entrance, low-water basin, Birkenhead. W. J. Doherty, li. 146.
- Caledonian canal. Cofferdams for sea locks. Sir J. Rennie, v. 42.
- Dublin, &c. "Description of cofferdams used at Dublin, Birkenhead, and Hull." W. J. Doherty (3 plates), li. 137.—Discussion: A. Giles, 151; J. Dixon, 151; H. Hayter, 151; J. Brunlees, 153; G. B. Bruce, 153; E. Woods, 154; H. Prince, 154; R. Aitken, 154; W. J. Doherty, 155; G. R. Stephenson, 156; H. Law, 157; B. B. Stoney, 158.



Cofferdams, for dock work—*continued*.

Grimsby. "Description of the cofferdam at Great Grimsby." C. Neate, ix. 1. (1 plate.)—Discussion: W. Cubitt, V.P., ix. 9; J. M. Rendel, 9, 12, 13, 16, 20; J. S. Russell, 11; J. Murray, 11; J. E. Errington, 12; Capt. O'Brien, 13; T. Clark, 14; Dean of Westminster (Dr. Buckland), 14, 19, 20, 21; I. K. Brunel, 18; A. Giles, 20.

—Cofferdam at Great Grimsby docks: with counterforts. C. Neate, ix. 3; J. M. Rendel, 10; J. Murray, 11; J. S. Russell, 11.—E. H. Clark, xxiv. 39; J. Murray, 57; A. M. Rendel, 58; J. Hawkshaw, 58; J. S. Russell, 59;—C. Neate, xxxi. 27.

Hull. Junction dock. J. Timperley, (T.) i. 30, 43.

—Victoria dock. W. J. Doherty, li. 149; H. Hayter, 151.

Montrose docks. J. Leslie, iii. 255.

Newport docks. J. Abernethy, xvii. 553; J. Murray, 553.

Newry canal (Entrance lock). Sir J. Rennie, x. 286.

Northumberland dock, River Tyne. W. A. Brooks, xxxi. 29.

Old Ford locks, river Lea navigation. R. C. Despard, xvii. 387.

Pola. Erection of cofferdams on rocky ground at Pola. J. Prucha, xlvii. 338.

Portsmouth dockyard extension. Lieut.-Col. Clarke, R.E., xxxi. 27.

Rio de Janeiro. Graving dock, Rio de Janeiro. H. Law, li. 157.

Sheerness dockyard, wall of. Sir J. Rennie, v. 42; vi. 159.

Silloth dock, cofferdam for constructing. J. Abernethy, xxi. 327.

Southampton docks. A. Giles, ix. 20; xvii. 541, 553.

Sunderland docks. J. Murray, xv. 429, 435, 446.

West India docks. Segmental cofferdam for constructing the South dock. L. F. Vernon-Harcourt, xxxiv. 164.—H. Hayter, li. 152.

COILS, shrinkage of. See *Artillery*.

COINAGE (decimal). See *Measures, weights and money*.

COINS, description of the automaton balance for weighing. J. Oldham, ii. (1843), 121.

## COKE—MANUFACTURE:—

"Abstract account of coals used in coke-ovens and retorts, and coke produced from one year's work at the Ipswich Gasworks." Communicated by W. Cubitt, (T.) i. 109.

Coke oven, by M. Pernolet, xxiii. 448. Continental ovens: C. W. Siemens, 452. Appolt's oven, 453. Eaton's oven: E. A. Cowper, 454. Powell's oven: Dr. O. Calvert, 454; M. Pernolet, 457.

—Utilising the heat of, i. (1839), 36; E. Cottam, 42.

"Distillation of coal, the utilisation of the resultant products, and the manufacture of coke." M. Pernolet, xxiii. 443.—Discussion: See *Coal, coking and distillation of*.

Porosity and absorbent power of coke. H. E. Jones, xl. 10. Pitch coke: J. Bethell, xii. 228.

## COKE—COMBUSTION AND HEATING POWER:—

Coal *versus* coke: comparative heating effects. J. Parkes, i. (1838), 19, 29, 40; A. Pellatt, 39;—G. Lowe, i. (1839), 35, 40; Dr. M. Faraday, 35;—A. Pellatt, i. (1840), 40; C. Hood, 65; J. Field, 67; A. Pellatt, 67.

**Coke**—combustion and heating power—*continued*.

Coal *versus* coke: comparative evaporative power. A. M. Perkins's boiler: J. Parkes, i. (1840), 66;—R. Stephenson, viii. 111; E. Woods, 112; W. Harding, 112; Dr. Lyon Playfair, 114. See *Locomotive boilers*, coal burning.

Combustion of coke in locomotives. D. K. Clark, xvi. 3, 5.

Composition, quantity, and temperature of gases produced by Saarbrück coke, and Bohemian lignite coke, in a gas furnace, lv. 422.

Evaporative efficiency of coke. D. K. Clark, xix. 559; table, 558; J. A. Longridge, 568, 576; T. Hawksley, 569, 579; E. A. Cowper, 580; C. Greaves, 582.

Moisture absorbed by. H. E. Jones, xl. 10.

"Relative heating powers of coke and coal in melting glass." A. Pellatt, i. (1838), 39.—Discussion: J. Parkes, i. (1838), 40; A. Pellatt, 40; C. Fox, 40.

Strength and heating power of various coxes (Belgian, English and other coxes). A. Godin-David, lvii. 399.

#### COLD AND REFRIGERATION:—

Cost of cooling water by ice. L. Olrick, xxxvii. 289; R. Reece, 300, 303; J. Siddeley, 300, 301; J. D. Barry, by Tait's process, 309.

Freezing by capillary attraction, combined with evaporation. C. Decharme, xxxix. 434.

List of publications on mechanical refrigeration, xxxvii. 271.

"Mechanical production of cold." A. C. Kirk, xxxvii. 244. (2 plates.)—Discussion: C. W. Siemens, xxxvii. 283, 300; H. J. West, 287, 300; J. Inray, 288; L. Olrick, 289; R. Reece, 290, 300; D. Thomson, 294; J. Siddeley, 300, 301; A. C. Kirk, 304; Prof. C. P. Smyth, 307; J. D. Barry, 309; J. Bourne, 311; C. Greaves, 313.

— by the expansion of air. J. Armengaud, jun., xxxix. 435.

Production of ice by evaporation. J. Bourne, xxxvii. 311.

Refrigerating machine. P. Giffard, xlv. 327.

"Refrigerator, or machine for cooling brewer's wort." R. Davison, i. (1841), 57.

Theory of freezing machines. A. Terquem, xlix. 378.

Carré's refrigerating machine. C. W. Siemens, xxxvii. 284; L. Olrick, 289; R. Reece, 292.

Gorrie's, Dr., refrigerating machine. C. W. Siemens, xxxvii. 285.

Kirk's, A. C., refrigerating machine. A. C. Kirk, xxxvii. 258; D. Thomson, 295; Prof. C. P. Smith, 308.

Siebe and Harrison's refrigerating machine. C. W. Siemens, xxxvii. 286; H. J. West, 287.

Tait's, A. H., ice-making machine. J. D. Barry, xxxvii. 309.

Windhausen's refrigerating machine. C. W. Siemens, xxxvii. 285; R. Reece, 291; J. Siddeley, 303.

**COLLEGE.** See *Education*, &c.

**COLLIERIES.** See *Coal-mines*.

**COLLIERS.** See *Ships and steam vessels*.

COMBUSTION. Temperatures of combustion. M. Berthelot, xlix. 375.

—, spontaneous, of cotton waste soaked in varnish (oil). H. Tapezierer and Dr. Rohrig, liii. 399.

COMPETITION PLANS, evils of. G. P. Bidder, xxiv. 348.

COMPO, composition and weight of. J. Grant, xxv. ; table, 102, 157.

CONCESSIONS, Government:—Portugal: J. S. Valentine, xviii. 2; T. Flanagan, 18; J. S. Russell, 19; J. Hawkshaw, 20. Norway: G. P. Bidder, xviii. 22.

#### CONCRETE IN CONSTRUCTION—General References:—

Concrete foundations under water: See *Foundations of concrete*.

“Construction of harbour and marine works with artificial blocks of large size.” B. B. Stoney, M.A., xxxvii. 332.—Discussion: See *Harbours*.

Durability of blocks in sea water. J. Hawkshaw, xxiv. 168; L. White, 169; J. Murray, 173.

Employment of, in works of construction: Historical notice. Sir J. Rennie, v. 34;—G. F. White, xi. 486;—G. Rennie, xvi. 423; J. Walker, 439; C. Greaves, 440; Maj.-Gen. Sir C. Pasley, 443; G. R. Burnell, 444; R. Stephenson, 447;—Sir J. Rennie, xxiv. 177;—J. Frost, xlv. 149.

“Employment of rubble béton, or concrete, in works of engineering and architecture.” G. Rennie, xvi. 423.—Discussion: G. Rennie, xvi. 436; R. Rawlinson, 436; F. C. Penrose, 473; A. Giles, 437; G. R. Burnell, 437, 444; C. B. Vignoles, 438; J. Simpson, 438; J. Walker, 439, 444; G. F. White, 439, 442; C. Greaves, 440, 443; R. J. Hood, 443; Gen. Sir C. Pasley, 443; C. Manby, 445; R. Stephenson, 447.

Machine-made *versus* hand-made. J. B. Mackenzie, lv. 19; C. Graham Smith, 65; W. J. Doherty, 99.

“Structures in the sea without cofferdams, with a description of the new Albert Harbour at Greenock.” D. Miller, xxii. 417.—Discussion: See *Harbours Greenock*.

#### CONCRETE, COMPOSITION OF—General References:—

‘Artificial granite.’ G. F. White, xi. 490.

Composition of concrete blocks for structures in the sea. J. F. Bateman, xxii. 440; N. Beardmore, 441, 442; F. W. Shields, 443; J. Jennings, 445; J. Wright, 445; D. Miller, 447;—Sir C. A. Hartley, xxxvi. 203, 205, 206; W. Parkes, 233; Sir J. Coope, 238, 240; J. F. Bateman, 242; Col. J. Stokes, R.E. 251;—B. B. Stoney, xxxvii. 334, 363, 374; W. Parkes, 358; L. F. Vernon-Harcourt, 362; Sir J. Coope, 365; J. F. Bateman, 368; A. T. Andrews, 372; J. N. Douglass, 373; R. G. Elwes, 378;—W. D. Cay, xxxix. 134, 137, 143.

Concrete for foundations of towers at the Crystal Palace. F. W. Shields, xxii. 443.

— for stopping leakages in sinking wells. J. Simpson, iv. 249.

Formation. J. J. Hawkins, vii. 70.

Principle of manufacture. G. F. White, xvi. 443.

Quick-lime concrete. G. Robertson, xvii. 440.

Setting under hydrostatic pressure, W. J. M’Alpine, xxvii. 288.

See *Foundations of concrete*.

## CONCRETE, COMPOSITION OF, FOR BREAKWATERS :—

- Blocks of concrete, employment of, in breakwaters. C. B. Vignoles, xxiv. 168; J. Hawkshaw, 168; Sir J. Rennie, 178; J. Jennings, 183.
- Alderney Breakwater. G. F. White, xi. 487.
- Algiers mole. R. Stephenson, xvi. 447;—Sir. J. Rennie, xviii. 132; J. Murray, 137;—J. Murray, xxiv. 173; Sir J. Rennie, 177.
- Biarritz jetty. Blocks of Portland-cement concrete, composition and weight. Sir C. A. Hartley, xxv. 150.
- Cherbourg. Size and composition of blocks in breakwater. G. F. White, xi. 488; xvi. 442;—C. Manby, xvi. 445.
- Danube. Piers at the Sulina mouth of the Danube. Sir C. A. Hartley, xxxvi. 203, 206.
- Kurrachee. Composition and manufacture of cement blocks for Manora breakwater. W. H. Price, xliii. 7, 19.
- Ford (Old). Foundations of Old Ford locks, river Lea navigation. R. C. Despard, xvii. 388.
- Leghorn, new mole. J. Murray, xxiv. 173;—Sir C. A. Hartley, xxv. 152.
- Marseilles. R. Stephenson, xvi. 447. Marseilles harbour: J. Murray, xviii. 108, 136; Sir J. Rennie, 132; G. Rennie, 134. Marseilles: D. Miller, xxii. 421. Blocks of concrete in breakwaters, Marseilles docks: T. Hawthorn, xxiv. 147; F. Murton, 169; W. Parkes, 169; J. Murray, 173.
- Red Sea. Foundations of lighthouses in the Red Sea. W. Parkes, xxiii. 13, 16, 17, 20, 26, 37.
- St. Jean de Luz jetty. Sir C. A. Hartley, xxv. 151.
- Suez canal. Blocks of concrete, Port Said, size and composition of. J. A. Longridge, xxv. 133; xxvi. 446.

## CONCRETE, COMPOSITION OF, FOR RESERVOIRS, BRIDGES, SEWERS :—

- Bann reservoirs. J. F. Bateman, vii. 259.
- Basle. Bridge over the Rhine, lvii. 330.
- Charing Cross bridge. Filling-in of cylinder piers. H. Hayter, xxii. 575.
- Château-Gontier bridge. M. Legras, xxxix. 393.
- Crusoe settling ponds, Sandhurst water supply, Victoria. J. Brady, lvi. 146.
- Dresden. Foundations of Albert bridge. M. Hacquard, l. 205.
- Düsseldorf. Foundations of a bridge over the Ruhr. Herr Wiebe, lii. 306.
- Germany. Concrete placed round the foundations of bridge-piers in rivers. R. Crawford, xxii. 14.
- Kiel. Cement concrete slips: H. Franzius, xlv. 298. Trass concrete, 298.
- Kingston-on-Thames river wall, J. Simpson, xvi. 439.
- Loch Ken viaduct. E. L. I. Blyth, xxi. 261.
- Mauritius railways. Foundation, Grand River viaduct. W. Ridley, xxv. 239, 240, 241; J. A. Longridge, 248.
- Portumna. Bridge across the Shannon. T. Rhodes, iii. 99.
- Queen Carola bridge over the Elbe, near Schandau, lv. 351.
- Ravi bridge, Concrete blocks, for protecting piers of. Composition. R. T. Mallet, liv. 65.
- Stratford-le-Bow new bridge. J. B. Redman, (T.) iii. 352, 355.
- Tewkesbury. Piers of cast-iron bridge. Capt. W. S. Moorsom, iii. 62.
- Vevey bridge. Portland-cement concrete. J. Gaudard, lviii. 311.

Culverts, South Australian railways. R. C. Patterson, lvi. 37.

Concrete, composition of, for reservoirs, bridges, sewers—*continued*.

- Dam, Croton river watershed, New York. J. J. R. Croes, xl. 312.
- Stony Creek, Geelong. E. Dobson, lvi. 112; J. Mansergh, 169.
- Lancaster waterworks. J. Mansergh, lvi. 169.
- Geelong waterworks. G. Gordon, xliii. 241.
- Sewers, Paris. H. B. Hederstedt, xxiv. 274.
- Portland-cement concrete. Southern main-drainage works, Crossness and Deptford. J. Grant, xxv. 78; W. R. Kinipple, 125.

CONCRETE, COMPOSITION OF FOR SEA-WALLS, PIERS, DOCKS :—

- Brighton. Sea-walls. J. Wright, xxii. 446.
- Chelsea Embankment. E. Bazalgette, liii. 23.
- Dover. Size and composition of blocks in breakwater or pier. G. F. White, xi. 486.—J. Walker, xvi. 439.—J. Murray, xxiv. 175.
- Dublin, port of. Blocks of Portland cement concrete : composition, dimensions, and weight of. J. F. Bateman, xxv. 142.
- New quay wall. W. J. Doherty, li. 142.
- Genoa Pier. Sir C. A. Hartley, xxv. 151.
- Glasgow, graving dock. D. Miller, xxii. 420;—E. H. Clark, xxiv. 42, 44.
- Gravesend. Foundations, Terrace pier. J. B. Redman, iv. 235, 248.
- Greenock. Albert harbour. D. Miller, xxii. 427.
- Greenore quay. J. Barton, xliv. 138, 143, 146.
- Houses of Parliament. River wall. G. S. Dalrymple, i. (1840), 19.
- Thames Embankment. E. Bazalgette, liv. 9, 54; A. Giles, 39.
- Whitehaven (West Quay). J. E. Williams, lv. 44.

- Docks. Avonmouth. J. B. Mackenzie, lv. 19, 20; W. J. Doherty, 99.
- London docks. D. Miller, xxii. 420.
- Pola. Santorin concrete for dock. H. E. Towle, xxxii. 67, 72, 92.
- Southampton docks. Quay walls. A. Giles, xvii. 545, 554; B. Rawlinson, 552.
- Victoria docks. W. J. Kingsbury, xviii. 448.

CONCRETE, composition of, for foundation of streets, Liverpool. G. F. Deacon, lviii. 10, 14; table, 13.

CONCRETE, STRENGTH AND WEIGHT OF :—

- Blue lias lime concrete. Weight and compressive strength. J. Grant, table, xxv. 110.
- Crushing resistance of concrete, Exhibition building, 1851. C. H. Wild, x. 173.
- Portland cement and Thames ballast concrete : weight and compressive strength. J. Grant, table, xxv. 110.
- "Portland cement concrete." (S.) J. W. Sandeman, liv. 251.
- "— in arches, and Portland cement mortar." (S.) C. Colson, liv. 264 (1 plate).
- Strength of: G. F. White, xi. 498; J. F. Bateman, xxv. 142. Weight: G. F. White, xi. 501.
- Power of concrete to resist intense heat, J. Barrett, xii. 259.
- Weight of concrete. J. Simpson, xvi. 439.

CONCRETE MIXER :—

- Le Mesurier's. C. Graham Smith, lv. 65.

**Concrete Mixer—continued.**

- Messent's, P. J. R. G. Elwes, xxxvii. 378;—W. D. Cay, xxxix. 138;—  
 W. H. Price, xliii. 8;—J. B. Mackenzie, lv. 19; C. Graham Smith, 65.  
 Ridley's mixer (Modified). Sir J. Cooke, lv. 86.  
 Stoney's. B. B. Stoney, xxxvii. 348;—W. J. Doherty, lv. 99.  
 Sutcliffe's. C. Graham Smith, lv. 65.

**CONVICT LABOUR.** A. J. Robertson, xviii. 110; J. Cooke, 110, 128; G. P. Bidder, 125, 128.

**COPPER:—**

- Allotropic copper. G. Wiedemann, lvii. 393.  
 Cement copper, on improvements in the production of, at Agordo.  
 L. Mazzuoli, xlv. 327.  
 Conditions of durability of copper. E. Clark, xxvii. 561.  
 Copper sheathing, for the protection of piling, Gravesend. J. Paton, ix. 36.  
 In Brazil: E. B. Webb, xix. 245.  
 — Action of sea-water on. Dr. Percy, xlviii. 74. See also *Ships and steam vessels*, sheathing.  
 Destruction of copper pipes in bilge water. P. Taylor, vii. 158.  
 Precipitation of copper by electricity. N. S. Keith, lii. 404.  
 Use of phosphide of copper in refining copper. O. Roessler, lvii. 392.  
 Variable quality of copper. J. Taylor, ii. (1842), 69.

**COPPER ORES, treatment of:—**

- Copper ores (treatment) at Freiberg. L. Grand, xlii. 348.  
 Copper-smelting furnace. J. L. Morgan, xxvi. 44; C. W. Siemens, 47.  
 Dressing of copper ores, in the Lake Superior district. C. M. Rolker, l. 280.  
 "Methods generally adopted in Cornwall in dressing tin and copper ores."  
 J. Henderson, xvii. 195.—Discussion: R. Hunt, xvii. 213; H. Mackworth, 213; S. Edwards, 213; J. Taylor, 214, 219; W. Smyth, 216;  
 J. Locke, 220.  
 Ore Knob copper mine and reduction works, Ashe county, North Carolina (stamping, dressing, and smelting, with wood as fuel). E. M. Olcott, xlv. 329.  
 Smelting copper ores. Herr Bräuning, lii. 352.  
 — of native copper at Lake Superior. F. Kupelwieser, lii. 344.  
 "— of refractory copper ores with wood as fuel in Australia." J. L. Morgan, xxvi. 44. (1 plate.)

**CORAL:—**

- Pacific Ocean, coral islands. Capt. Maury, xxiii. 35.  
 Red Sea, Dædalus coral reef. W. Parkes, xxiii. 2, 4; J. G. C. Curtis, 32.  
 — Ushruffee coral reef. W. Parkes, xxiii. 2, 5; J. G. C. Curtis, 31.  
 Structure of coral reefs. W. Parkes, xxiii. 4; J. G. C. Curtis, 32.

**CORNISH ENGINES.** See *Steam engines*, Cornish.

**CORROSION OF METALS.** See *Copper*; *Iron*, cast, corrosion, &c.; *Iron*, wrought, corrosion of; *Metals*; *Steam boilers*; *Steel*, corrosion of.

**COSTS.** See *Quantities and costs*.

**COTTON WASTE**, spontaneous combustion of cotton waste soaked in varnish (oil). H. Tapezierer and Dr. Rohrig, liii. 399.

Slow oxidation and heating of cotton waste soaked in varnish oils. H. Tapezierer and Dr. Rohrig, liii. 399.

**COUNTERS :—**

Donkin's. T. Oldham, ii. (1842), 167.

Electric for machinery. S. Bozzone, xlvii. 421.

Engine. J. Richmond, vii. 71.

**COVENT GARDEN THEATRE**. "Decayed bond timbers in the walls of Covent Garden Theatre." B. Albano, vi. 255.

**CRAB, or winch :—**

Crab, or winch, by E. B. Denison, xviii. 231.

— for hoisting the bells at the New Palace, Westminster. J. James, xix. 7.

Hydraulic break for steam crab. W. Matthews, i. 100.

Work of a winch in moving Sunderland lighthouse. J. Murray, iii. 351.

**CRANES :—**

Cranes and steam crabs, hydraulic break for. W. Matthews, i. 100.

Hydraulic traversing cranes with suspended hydraulic cylinder, for laying large concrete blocks under water. M. Scott, xviii. 88; J. Abernethy, 116;

—M. Scott, xlix. 65.

Movable-jib cranes by W. Gale, iii. 214.

— "Remarks on the utility and defects of, according to the construction now generally used in Glasgow, with proposed improvements to obviate its defects." W. Gale, iv. 333. (3 plates.)

Pneumatic (Exhaustion) crane by Mr. Hague. H. Robinson, xlix. 21.

Results of experiments on stress in cranes. W. Gale, iv. 335; tables, 337, 338.

Travelling crane, for constructing breakwaters. T. R. Winder, xviii. 95.

— with self-adjusting balance-weights. Prof. K. Keller, ii. 326.

Wonlarlarsky's transhipping crane, liv. 339.

Work of men at a crane. J. Field, (T.) ii. 211.

Alderney breakwater. Sea-staging crane, 'Samson.' J. Jackson, xxxvii. 87.

Bell Rock lighthouse, balance crane. R. Stevenson, iv. 342.

— "Movable beam crane." R. Stevenson, iv. 339.—Discussion on the two preceding Papers: Sir J. Rennie, iv. 345; J. Walker, 345; J. Farey, 345; G. Cottam, 348.

Dublin. Floating shears, to lift 350 tons, Harbour works. B. B. Stoney, xxxvii. 335; W. D. Cay, 369; J. I. Thornycroft, 370.

Dundee harbour. "Description of a thirty-ton crane, erected on the quay of Earl Grey's dock." J. Leslie, i. (1841), 55.

Granton pier. Movable derrick crane used. J. Howkins, iii. 212.

Harwich. Appleby's steam-crane. H. Robinson, xlix. 16. Steam-crane, river Medlock, 16. Steam-crane, Llanelly dock, 17.

Hull. Wooden cranes, Old dock, J. Timperley, (T.) i. 7.

— Cast-iron cranes and wooden cranes, at Humber dock. J. Timperley, (T.) i. 21, 22.

Kurrachee. Travelling crane, 'Titan,' to lift 27 tons, for breakwater. W. Parkes, xxxvii. 357, 358;—W. H. Price, xliii. 9.

**Cranes—continued.**

Kurrachee. Steam hydraulic travelling crane, 'Goliath,' for lifting concrete blocks for breakwater. W. H. Price, xliii. 9.

Lossiemouth harbour works, movable derrick crane at. J. Bremner, iii. 214.

Marseilles docks. Steam travelling cranes, for building warehouses, T. Hawthorn, xxiv. 152.

Rouen. Floating steam-cranes for unloading steamers. E. A. Cowper, xli. 123.

Sevastopol. Travelling crane for the construction of iron dockgates. W. Shears, vi. 56.

See *Hydraulic cranes*.

**CRYSTALLIZATION**, superfusion and supersaturation, theory of, after the principles of the mechanical theory of heat. M. de Coppet, xlv. 298.

**CULVERTS :—**

Culverts, of lime concrete. South Australian railways. R. C. Patterson, lvi. 86, 87.

List of culverts, São Paulo railway. D. M. Fox, xxx. 51.

Proper amount of waterway for culverts. T. M. Cleemann, lviii. 375.

**CURRENTS**, velocity of. See *Water*, flow of, in rivers, &c.

**CUTTINGS AND EMBANKMENTS**. See *Railways*; *Rivers*.

**CYLINDER FOUNDATIONS**. See *Foundations*, cylinder.

**DAMS :—**

Clay dams for foundations. J. Gaudard, l. 116.

Movable (needle) dam, new type of. M. Boule, xlv. 268.

— (French), liv. 300.

— (in America), l. 216.

Avonmouth. Temporary dams, of consolidated silt, and of timber, for Avonmouth dock works. J. B. Mackenzie, lv. 7; A. Giles, 54.

Charente. Mérienne (movable) dam. M. Alexandre, xlviii. 311.

Chatham. Temporary earthen dam for Chatham dockyard extension.

Lt.-Col. Clarke, R.E., xxxi. 27.

Chécliff (Algeria). Masonry dam. Damming of the. M. Lamaisse, xxxix. 390.

Feroze Shah's canal. Masonry dam. Maj.-Gen. G. B. Tremeneheere, xvii. 490.

Grimsby. Temporary dam for Great Grimsby Docks. E. H. Clark, xxiv. 41.

Mississippi. Wing dams (fascines) in the Mississippi. E. P. North, li. 362.

Rhine. Raupkopf dam (gravel, piles, and fascines). G. B. W. Jackson, vii. 222.

— Fascine dam, Island of Honneff. G. B. W. Jackson, vii. 232.

Seine. Poirée needle-dams on the river, liv. 296.

Spain. Masonry dam for irrigation canal at the Laguna del Rey. J. D. Barry, xxvii. 520.

Swansea Docks. Temporary dam (groynes and boulders). J. Abernethy xxi. 314.

See *Cofferdams*; *Reservoirs*, Storage—Dams.

**DARIEN**, Isthmus of. See *Atlantic and Pacific Oceans*.



**DEFENCES (National):—**

National defences. G. P. Bidder, xix. 222;—J. Hawkshaw, xxi. 175, 180. G. P. Bidder, Jun., xx. 391. (1 plate.)—Discussion: G. P. Bidder, xx. 403, 509, 523; G. P. Bidder, Jun., 408, 502; Col. Adair, 409; J. S. Russell, 416; Col. Jervois, R.E., 424, 439, 503, 522; Com. R. A. E. Scott, R.N., 425; J. D'A. Samuda, 427; Admiral Sir G. B. Sartorius, 430; J. Lawrence, 438; J. Hawkshaw, 448; Col. Lysons, 450; Capt. Moorsom, 452; H. Conybeare, 458; Sir W. G. Armstrong, 471, 486, 522; T. E. Harrison, 485; W. Clay, 487; Col. Simmons, R.E., 487; Col. Sala, R.E., 494; T. Aston, 496; J. A. Longridge, 500.

— Gregory's Address, xxvii. 180.

See *Artillery*; *Ship of War*.

**DENTAL CARVING**, machine for. J. Tomes, iv. 250.

**DEODORISATION**. See *Sewage*.

**DERRICKS**. See *Cranes*.

**DIVING AND DIVING DRESSES:—**

Historical notice. J. W. Heinke, xv. 309; Lt.-Gen. Sir C. Pasley, 328, 330, 337, 340; G. P. Bidder, 330; J. Bethell, 330, 338, 344; Capt. Sir E. Belcher, 339; C. B. Vignoles, 339; R. Mallet, 339; R. Stephenson, 340.

“Improvements in diving dresses and other apparatus for working under water.” J. W. Heinke, xv. 309.—Discussion: J. W. Heinke, xv. 326, 327, 330; A. Giles, 326; A. Siebe, Jun., 327, 345; A. Siebe, Sen., 327; Mr. West, 327; J. Gibbs, 327; Gen. Sir C. Pasley, 328, 330, 337, 340; G. P. Bidder, 330; J. Bethell, 330, 338, 344; Capt. Sir E. Belcher, 339; C. B. Vignoles, 339; T. J. Pearsall, 339; R. Mallet, 339; R. Stephenson, 340, 347.

Supplying air under pressure: The Aërophore Rouquayral-Denayrouze. A. Habets, xlv. 325.

Use of diving dress at Victoria docks. W. Heinke, xviii. 149. At Alderney breakwater: J. Jackson, xxxvii. 88.

Deane's and Bethell's dress. J. Bethell, xv. 331, 333, 338; Lt.-Gen. Sir C. Pasley, 337; A. Siebe, Jun., 345.

Heinke's helmet. J. W. Heinke, xv. 322, 326, 330; A. Giles, 326.

Siebe's helmet. A. Siebe, xv. 327, 345; Lt.-Gen. Sir C. Pasley, 329.

Aberdeen. Regulations for diving, new south breakwater. W. D. Cay, xxxix. 186.

Kurrachee. Diving work, Manora breakwater. W. H. Price, xliii. 6.

Silesia. Work done by divers in the Scharley zinc mines. H. Freuden-berg, xlv. 343.

**DIVING BELLS:—**

Historical notices of diving bells. J. Hughea, x. 358.

Apparatus for submarine foundations. B. Morell, xl. 315.

Boat-shaped diving bell. Col. Pasley, i. (1839) 68.

Diving-boat, or boat diving-bell, for repairing weirs in flood-time, liv. 297.

Dublin. “On the machinery used for working the diving bell at Kingstown Harbour.” P. Henderson, ii. (1842) 148.

**Diving Bells—continued.**

Dublin. Diving bell and barge, Dublin Harbour Works. B. B. Stoney, xxxvii. 339, 375; Sir J. Coode, 366. Air-pump, 354, 355.

Kilrush. "Description of the machinery for working the diving bell used for setting the masonry under water, at the extension of the pier at, in the river Shannon." W. Vanderkiste, v. 245.—Discussion: Lt.-Col. H. D. Jones, R.E., v. 247; Sir J. Rennie, 248; J. Walker, 248.

Lary bridge. Wooden diving bell, J. M. Rendel, (T.) i. 103.

**DOCKS:—**

General historical notice. Sir J. Rennie, v. 39.

Hydraulic power. See *Hydraulic power* for dock service.

Proper minimum width of docks. A. Giles, lv. 52; Sir J. Coode, 86, 89; Col. Martindale, R.E., 89; J. B. Mackenzie, 94; J. E. Williams, 96; B. B. Stoney, 118.

Scouring or sluicing docks. J. Murray, xv. 437, 447; J. M. Rendel, 449; J. Gibbs, 451.

Amsterdam. New quays and docks at the port of Amsterdam, li. 378.

Avonmouth dock: notice. J. F. Bateman, lii. 14.

— J. B. Mackenzie, lv. 3. (2 plates.)—Discussion: see J. E. Williams's Paper on Whitehaven harbour and dock (p. 114).

Birkenhead. "Description of the low-water basin at Birkenhead." J. Ellacott, xxviii. 518; xxix. 3. (5 plates.)—Discussion: J. Murray, xxix. 3; J. Abernethy, 5; T. Webster, Q.C., 7, 17; J. A. Longridge, 9; R. Rawlinson, C.B. 16; W. Parkes, 17; A. Giles, 18; J. F. Blair, 19; T. Hawkaley, 19; N. Beardmore, 21.

— notice. J. F. Bateman, lii. 16. Plan of docks: J. N. Shoolbred, xlv. plate 4.

Chatham. Temporary earthen dam for Chatham dockyard extension. Lt.-Col. Clarke, xxxi. 27.

Grimsby. "Description of the Great Grimsby (Royal) docks." E. H. Clark, xxiv. 38. (4 plates.)—Discussion: E. H. Clark, xxiv. 54, 59, 61; J. Coode, 54; Admiral Sir E. Belcher, 54; W. A. Brooks, 56; J. Murray, 57; A. M. Rendel, 57; J. Hawkshaw, 58; J. S. Russell, 59; J. Fowler, 60. — Dock for fishing craft, Great Grimsby. E. H. Clark, xxiv. 51.

Hull. "An account of the harbour and docks at Kingston-upon-Hull." J. Timperley, (T.) i. 1.

— historical notice. "The Hull docks." Sir W. Wright, xli. 83.

— "The construction of the Albert dock at Kingston-upon-Hull." J. C. Hawkshaw, xli. 92. (3 plates.)—Discussion on the two preceding Papers: T. E. Harrison, xli. 114, 123; Sir W. Wright, 114; Sir J. Hawkshaw, 114, 122; A. Giles, 116; J. C. Hawkshaw, 116, 122; J. B. Redman, 117; J. Grant, 118; S. C. Homersham, 119; E. A. Cowper, 120, 123; J. F. Bateman, 120; Col. Du Plat Taylor, 121; T. J. Pearsall, 121; J. A. McConnochie, 122.

Liverpool. Historical notice. J. F. Bateman, lii. 15. Plan of the docks: J. Ellacott, xxviii. plate 22. Material dredged from the docks: J. N. Shoolbred, xlv. 33; Adm. G. Evans, 50; R. Rawlinson, C.B., 51. Plan of Liverpool docks: J. N. Shoolbred, xlv. plate 4.

London. "Description of the port of London and of the works at the London docks." R. Richardson, ii. (1842), 59.

## Docks—continued.

London. Historical notice of Victoria docks: G. P. Bidder, xviii. 483. Cost, 487.

— "Description of the entrance, entrance-lock, and jetty-walls of the Victoria docks; with a detailed account of the wrought-iron gates and caisson, and remarks upon the form adopted in their construction." W. J. Kingsbury, xviii. 445. (2 plates.)—Discussion: J. Abernethy, xviii. 477; J. Murray, 477, 479; W. J. Kingsbury, 478; A. Giles, 479, 482; J. Cooper, 481; F. J. Bramwell, 481; R. Rawlinson, 481; G. P. Bidder, 482, 488; J. Hawkshaw, 488; E. Humphrys, 488; G. Hurwood, 488.

— Use of diving dress at. W. Heinke, xviii. 149.

— "Description of the new South dock in the Isle of Dogs, forming part of the West India Docks." L. F. Vernon-Harcourt, xxxiv. 157. (4 plates.)—Discussion: J. B. Redman, xxxiv. 167; A. Giles, 169, 172; Capt. Calver, B.N., 170; J. Hawkshaw, 171, 175; R. Rawlinson, C.B., 172; J. Abernethy, 173; J. Brunlees, 175; J. Grant, 175; L. F. Vernon-Harcourt, 176.

Marseilles. "Account of the docks and warehouses at Marseilles." T. Hawthorn, xxiv. 144. (2 plates.)—Discussion: C. B. Vignoles, xxiv. 168, 170; J. Hawkshaw, 168, 170; L. White, 169; F. Murton, 169; W. Parkes, 169; C. Reilly, 170; J. Murray, 171; A. Giles, 175; Sir J. Rennie, 176; J. B. Redman, 178; G. W. Hemans, 180; W. T. Hendry, 181; J. Fowler, 182; J. Grant, 182; J. Jennings, 183.

Middlesbrough-on-Tees: Dock. G. Turnbull, v. 250.

Portsmouth. Compressed-air used for dock service, Portsmouth. H. Robinson, xlix. 21; T. Wrightson, 48; W. E. Rich, 52.

Shields, South. "On the Tyne docks at South Shields; and the mode adopted for shipping coals." T. E. Harrison, xviii. 490. (3 plates.)—Discussion: T. E. Harrison, xviii. 504, 514; A. Giles, 504; J. Murray, 505; J. Abernethy, 506, 507, 523; J. M. Rendel, 506; T. Hawksley, 507; E. A. Cowper, 508; M. Scott, 509; J. W. Johns, 511; R. Rawlinson, 512; W. A. Brooks, 512, 513; A. J. Robertson, 513; Sir J. Rennie, 520; G. P. Bidder, 520, 523; J. Hawkshaw, 522; R. Stephenson, 522, 523.

Silloth, port of: Dock. J. Abernethy, xxi. 327.

Southampton. "On the Construction of the Southampton docks." A. Giles, xvii. 540. (1 plate.)—Discussion: N. Beardmore, xvii. 551; R. Rawlinson, 552; J. Abernethy, 553; J. Murray, 553; A. Giles, 553; J. Locke, 554.

Sunderland. Groynes on South rocks, for new docks. W. Brown, viii. 186.

— "On the progressive construction of the Sunderland docks." J. Murray, xv. 418. (4 plates.)—Discussion: R. Stephenson, xv. 445; J. Murray, 445; J. M. Rendel, 449; I. K. Brunel, 449; J. Oldham, 451; J. Gibbs, 451, 453, 455; T. Webster, 452; G. P. Bidder, 453; R. Stephenson, 455.

Swansea. South docks and north docks, Swansea. J. Abernethy, xxi. 313.

Tyne docks. See *Shields* (ante).

"Whitehaven harbour and dock works." J. E. Williams, lv. 36.—Discussion: See *Harbour*.

## DOCKS, DRY OR GRAVING:—

Historical notice. E. Clark, xxv. 293; J. B. Redman, 331.

**Docks, dry or graving—continued.**

Cost of graving docks. J. B. Redman, xxxiii. 368, 369.

Belfast. Dimensions of graving docks. T. R. Salmond, lv. 30.

Birkenhead graving docks. J. Abernethy, xxv. 320.

Campana graving dock, arsenal of Ferrol, Spain, lv. 374.

Clyde. Dimensions of graving docks on the Clyde. J. Deas, xxxvi. 155.

Falmouth graving docks. J. Abernethy, xxv. 320.

Grimsby, Great, graving dock. E. H. Clark, xxiv. 48.

Kiel. Dry docks at Ellerbeck, near Kiel. H. Rechtern, xli. 259.

Malta. "The Somerset dock." C. Andrews, xxxiii. 352. (3 plates.)—

Discussion: J. B. Redman, xxxiii. 368; G. W. Hemans, 369; N. Beardmore, 370; J. G. C. Curtis-Godman, 370; G. R. Stephenson, 370; W. H. Allen, 371; J. Grant, 371; Lt.-Col. A. Clarke, R.E., 372.

Marseilles graving docks. T. Hawthorn, xxiv. 156, 158.

Portsmouth dry dock. E. Clark, xxv. 294.

Southampton graving dock. A. Giles, xvii. 548.

Sunderland graving dock. J. Murray, xv. 443.

Thames. Graving docks. E. Clark, xxv. 298.

Woolwich dockyard. Trafalgar graving dock. J. B. Redman, xxv. 330.

**DOCKS, FLOATING (DRY OR GRAVING):—**

Historical notice. F. J. Bramwell, xxv. 313.

"Hydraulic-lift graving dock." E. Clark, xxv. 292. (1 plate.)—Discussion: E. Clark, xxv. 310, 312, 347; J. Abernethy, 310, 319, 340, 352; C. Capper, 310; P. Hedger, 311; A. Giles, 311, 324, 344; J. S. Russell, 311, 345; Sir C. Fox, 312; F. J. Bramwell, 313; C. B. Vignoles, 322; W. R. Kinipple, 323, 341; A. M. Rendel, 324; J. Heppel, 327; J. B. Redman, 330; J. Murray, 332; G. B. Rennie, 333; W. Scamp, 334; J. Hawkshaw, 337; F. W. Sheilda, 338; G. H. Phipps, 340; G. P. Bidder, 341.

— *versus* ordinary graving and floating docks. E. Clark, xxv. 292, 349; J. Abernethy, 310; J. S. Russell, 311, 345; Sir C. Fox, 313; F. J. Bramwell, 317; J. Abernethy, 319; A. M. Rendel, 324; A. Giles, 324; J. Heppel, 329; J. Murray, 332; G. H. Phipps, 341;—J. G. C. Curtis-Godman, xxxiii. 370; Lt.-Col. A. Clarke, R.E., 372.

List of floating docks, with dimensions, &c. G. B. Rennie, xxxi. 298.

Bermuda dock. C. B. Vignoles, xxix. 290.

Cartagena and Ferrol. "An account of floating docks, more especially those at Cartagena and at Ferrol." G. B. Rennie, xxxi. 295. (2 plates.)

—Discussion: G. B. Rennie, xxxi. 313; G. W. Hemans, 313; W. H. Barlow, 313; H. E. Towle, 314.

— floating dock. List of vessels lifted on the dock. G. B. Rennie, xxxi. 312. Cost of the dock, xxxi. 313.

Marseilles floating dock. T. Hawthorn, xxiv. 157;—E. Clark, xxv. 296.

Pola. Balance floating dock at Pola. G. B. Rennie, xxxi. 297; H. E. Towle, 314. List of vessels lifted on the dock, xxxi. 310.

—"An account of the basin, the balance-dock, and the marine railways, at the Austrian naval station at Pola, on the Adriatic." H. E. Towle, xxxii. 65—Discussion: G. W. Hemans, xxxii. 76; A. Giles, 76, 80, 82; J. Murray, 76; J. W. Bazalgette, 78; Dr. W. Pole, 79; T. E. Harrison,

**Docks, floating (dry or graving)—continued.**

79; G. B. Rennie, 80; J. Brunlees, 80; J. Grant, 81, 84; J. B. Redman, 82; J. M. Heppel, 83; F. J. Bramwell, 84; J. N. Douglass, 84; H. E. Towle, 84.

Saigon, Cochín China, lviii. 380.

St. Thomas's. F. J. Bramwell, xxv. 318.

United States. E. Clark, xxv. 296. Screw dock, hydraulic dock: F. J. Bramwell, 314; C. B. Vignoles, 322;—H. E. Towle, xxxi. 314.

**DOCKS—DOCK ENTRANCES:—**

Ipswich docks: C. May, vii. 178; J. Walker, 179; J. B. Redman, 179.

Liverpool, Duke's dock: W. Cubitt, V.P., vii. 180.

London. "Remarks on the formation of entrances to wet and dry docks situated upon a tideway, illustrated by the principal examples in the port of London." J. B. Redman, vii. 159. (1 plate.)—Discussion: J. B. Redman, vii. 173, 179, 182, 183; J. Walker, 175, 179; G. Rennie, 175; S. Young, 176; T. B. Spence, 177; W. Cubitt, V. P., 178, 180; C. May, 178; J. Murray, 179, 180; J. M. Rendel, 181; J. S. Russell, 181; I. K. Brunel, 182;—J. B. Redman, xxxiv. 169; Capt. Calver, R.N., 170; J. Abernethy, 174; J. Brunlees, 175.

Sunderland dock: J. Murray, vii. 179, 180.

**DOCKS—DOCK GATES:—**

"Dock gates." A. F. Blandy, lviii. 154. (1 plate.)

Hydraulic power for dock gates. See *Hydraulic machinery—Transmission of power.*

Iron gates *versus* timber gates. J. Walker, iii. 255, 256; C. B. Vignoles, 256.

Transverse stress on dock gates. W. Bell, xxxiii. 100.

Holland. Sliding gate in the Zuyder Zee, by J. C. Singels. J. Murray, xiii. 458; J. Simpson, 463.

Keyham. "Description of the aliding caisson." W. Fairbairn, xiii. 444. (1 plate.)—Discussion: W. Scamp, xiii. 456; W. Fairbairn, 457, 459; W. G. Armstrong, 458; Lord Radstock, 458; J. Walker, 458; W. J. M. Rankine, 458; Lady Bentham, 459; J. Simpson, 463.

Montrose. "Description of a pair of iron gates, constructed in 1843, for the entrance to the wet dock." J. Lealie, iii. 250.—Discussion: J. Walker, iii. 255, 256; C. B. Vignoles, 256; J. Oldham, 256; Jacob Samuda, 256.

Portsmouth. Sliding gate, or "floating dam," by Sir S. Bentham, Lady Bentham, xiii. 459.

Sevastopol. "Description of the iron gates for the docks at, and of the machinery used by Messrs. G. and J. Rennie in their construction." W. Shears, vi. 47. (6 plates.)—Discussion: G. Rennie, vi. 53; Sir J. Rennie, 54; Capt. Moorsom, 54; J. Field, 54; J. M. Rendel, 54, 55; J. G. C. Curtis, 54, 55; J. B. Redman, 55; F. Ayrton, 55; Brunel, 55.

Sunderland. Dock gates of cast-iron and timber. J. Murray, xv. 429, 440.

Cast-iron heel post: J. Murray, xviii. 477.

See *Docks; Lock gates.*

**DOCKS—DOCK WALLS:—**

Conditions of stability and designing of dock walls. A. Giles, xvii. 546; N. Beardmore, 551; R. Rawlinson, 552; J. Abernethy, 553;—A. Giles

**Dock walls—continued.**

lv. 52; C. Graham Smith, 65; G. E. Eachus, 66; J. Grant, 67; R. Aitken, 85; J. B. Mackenzie, 92; J. E. Williams, 96; W. R. Kelly, 106.

Believing dock walls and pier walls from back pressure. J. Murray, vi. 279;—A. Giles, lv. 53; J. B. Mackenzie, 93.

Avonmouth dock, east wall. J. Brunlees, xxxiv. 175; xxxix. 149.

Liverpool. Rubble masonry of sea walls and dock walls: R. Rawlinson, xvii. 552; xxv. 115.

Spezzia dock walls. Sir C. A. Hartley, lv. 103.

See *Docks; Quays*.

**DRAINAGE** of earthworks. See *Railway Cuttings and Embankments*.

**DRAINAGE OF LAND—general principles:—**

Historical notice. Sir J. Rennie, v. 43; J. Brunlees, xxi. 119.

Absorbent and retentive powers of clays. J. B. Denton, xxi. 54.

Analyses of soils; "free," or mixed soil: J. B. Denton, xxi. 51. Gault clay, 51.

"Arterial drainage and outfalls." R. B. Grantham, xix. 53. (2 plates.)—Discussion: J. Looka, xix. 86, 111, 112; J. B. Denton, 86, 120; J. Clutton, 88; J. Simpson, 89; Sir J. Rennie, 90, 101, 112; J. Fowler, 99; J. Cooper, 101; G. W. Hemans, 103; F. Barry, 104; G. P. Bidder, 105, 125, 127; W. A. Brooks, 106; J. G. C. Curtis, 107; T. Ormiston, 140; S. W. Leach, 111, 112; W. J. Clutton, 113; N. Beardmore, 114; T. Hawksley, 115, 126; R. Maming, 119; R. B. Grantham, 122; J. H. Jones, 125.

Capillary action of the soil. J. Gibbs, xxi. 88.

Classification of lands requiring drainage; "free" soils and clays. J. B. Denton, xxi. 49; T. Hawksley, 104.

— of rivers and streams with reference to the magnitude of their floods; proposed as a means of facilitating the investigation of the law of drainage. Lt.-Col. P. P. L. O'Connell, R.E., xxvii. 204.

"Construction of model maps, as a better mode than sectio-planography for delineating the drainage and agricultural improvements of a country, or projected lines of railways, canals, &c." J. B. Denton, ii. (1842), 155.

"Discharge from under drainage, and its effects on the arterial channels and outfalls of the country." J. B. Denton, xxi. 48. (1 plate.)—Discussion: G. P. Bidder, xxi. 83, 85; J. B. Denton, 83, 86, 121; Rev. J. C. Clutterbuck, 84; J. Simpson, 86; J. Gibbs, 88, 97; J. Evans, 90; R. B. Grantham, 92; E. Chadwick, 93; S. Sidney, 95; Sir J. Rennie, 97; R. Rawlinson, 98; G. W. Hemans, 99; T. Hawksley, 99; G. P. Bidder, 107; J. H. Lloyd, 110; R. Mallet, 114; R. Field, 116; J. Brunlees, 119; J. Hawkshaw, 128.

Discussion on water supply and land drainage, xx. 210.

Drainage of mountain roads. Major J. Browne, R.E., xxxviii. 79.

— of clay mountains. By G. Gerstel, xxxix. 309.

Extent of wet lands in Great Britain. J. B. Denton, xxi. 50, 62.

Flood-drainage in Yorkshire, &c. J. F. Bateman, xx. 229.

"Floods in England and Wales during 1875, and on water economy." G. J. Symons, xlv. 1.—Discussion: *vide* C. Greaves's Paper "On Evaporation and on Percolation" (*Rainfall—Evaporation*).

"Improvement of the roads, rivers, and drainage of the counties of Great Britain." R. Sibley, i. (1841), 100.

**Drainage of land : general principles—continued.**

- "Improvement of tidal navigations and drainages." W. A. Brooks, xii. 1.  
 Influence of steam cultivation on drainage of clay soils. S. Sydney, xxi. 96.  
 Legislation. R. B. Grantham, xix. 84, 123; J. B. Denton, 86, 120; J. Fowler, 99; J. Cooper, 102; G. W. Hemans, 103; F. Barry, 104; G. P. Bidder, 105, 128; W. J. Clutton, 113; N. Beardmore, 114; T. Hawksley, 117, 126; R. Manning, 119; J. B. Denton, 120;—J. B. Denton, xxi. 63, 83; J. Gibbs, 90; R. B. Grantham, 93; S. Sydney, 95; T. Hawksley, 99, 102; G. P. Bidder, 107, 110; J. H. Lloyd, 113; J. Hawkshaw, 128.  
 Natural fluctuations of water-levels in free soils. Hinxworth : J. B. Denton, xxi. 53. In clays, 54.  
 Principles of drainage for flat lands. Sir J. Rennie, iv. 200. The Dutch system of drainage, 200. Drainage of Fen district: J. Smeaton's opinions, 205. Muston drainage: Sir G. Cayley, 209.  
 Rule for horse power for draining off water by pumping. E. Sonne, lvii. 371.  
 Tidal drainage. J. G. C. Curtis, xix. 108.  
 'Water of pressure.' R. Field, xxi. 116; J. B. Denton, 124.

**DRAINAGE OF LAND—SPECIAL:—**

- Ancholme level. "An account of the drainage of the level of Ancholme, Lincolnshire." Sir J. Rennie, iv. 186. (1 plate.)—Discussion: J. Oldham, iv. 200; Sir J. Rennie, 200, 209, 211; R. Stephenson, 201; F. Giles, 201, 202, 209; J. Smith (Deanston), 202, 204; J. Walker, 203; J. Farey, 205; Sir G. Cayley, 209.  
 — R. B. Grantham, xix. 75; J. Fowler, 100.  
 Bedford Level. Historical notice: Sir J. Rennie, v. 42;—R. B. Grantham, xix. 65; Sir J. Rennie, 91; J. Fowler, 99; J. Cooper, 101; G. P. Bidder, 106, 125; W. A. Brooks, 106; J. G. C. Curtis, 107; N. Beardmore, 114; T. Hawksley, 118.  
 — Middle-level drainage. "Account of the cofferdam, syphons, and other works, constructed in consequence of the failure of St. Germain's sluice of the middle-level drainage." J. Hawkshaw, xxii. 497.  
 Boston (South) Flats, U.S., improvement of. E. S. Philbrick, liii. 315.  
 Broadlands drainage. J. B. Denton, xxi. 125; table, 127.  
 Calumet Marshes. Drainage of the Calumet Marshes, South Chicago. F. W. Clarke, xlix. 338.  
 Canterbury, New Zealand. Drainage districts. E. Dobson, xxix. 115.  
 Chelson Marshes. "Description of the Chelson Meadow sluice." T. Budd, (ii. 1842), 62.—Discussion: J. M. Rendel, ii. (1842), 62; Mr. Prior, 63; J. Walker, 65.  
 Forez. Improvement and irrigation of the Plain of Forez, liv. 304.  
 Fucino (Lake), drainage of. A. Brisse and L. de Rotrou, li. 367.  
 Gascony. "Draining and improving 1,500,000 acres of desert land." (S.) G. Wilson, lv. 234.  
 Hainault forest, drainage of. R. B. Grantham, xix. 78.  
 Hinxworth drainage. J. B. Denton, xxi. 48, 121; tables, 66–82; R. Field, 118.  
 Holland. Drainage of southern part of Zuyder Zee. E. Sonne, lvii. 367.  
 Ireland, drainage in. R. B. Grantham, xix. 62; G. W. Hemans, 103; F. Barry, 104; G. P. Bidder, 105; R. Manning, 119. Drainage of peat land, Test valley: J. B. Denton, xxi. 61.

Drainage of land—special—*continued*.

Lea. "Description of the navigation and drainage works recently executed on the tidal portions." N. Beardmore, xiii. 241.

Majorca. "The drainage, irrigation, and cultivation of the Albufera of Alcudia, and application of the common reed as a material for paper."

(S.) H. R. Waring, lii. 243.

Sologne. Improvement. M. Sainjon, xi. 306.

Thames. Drainage area: J. B. Redman, xlix. 73; table, 99; J. Abernethy, 132; G. J. Symons, 146. Discharge of the river Thames: T. Hawksley, xx. 214.

Toulouse. Results of irrigation, drainage, and replanting of desert land (Plain of Toulouse). C. Boissay, lvi. 341.

Wareham marshes, draining and improving. R. B. Grantham, xix. 56; J. Simpson, 90.

Witham. "Description of the river Witham, and its estuary, and of the various works carried out in connection therewith, for the drainage of the fens, and the improvement of the navigation." W. H. Wheeler, xxviii. 59. (2 plates.)—Discussion: W. H. Wheeler, xxviii. 81, 83, 104; C. B. Vignoles, 81; G. W. Hemans, 82; R. P. Brereton, 82; A. Giles, 82; J. Cubitt, 82; R. C. May, 83; T. Hawksley, 83, 99; T. Login, 84; J. Murray, 86; Jos. Taylor, 94; J. B. Redman, 95; J. Hawkshaw, 96; W. Shelford, 97; J. Brunlees, 98; J. Abernethy, 101; T. M. Johnson, 101.

"— pumping machinery and works at Lode Bank." E. Welsh, xxxiv. 178.

—Discussion: See *Pumping engines*.

Yorkshire, Drainage in. R. B. Grantham, xix. 77; W. J. Clutton, 113.

See *Lagoons* and *Marshes*.

## DRAINAGE OF LAND—UNDER DRAINAGE:—

Clay soils, method of under-draining: J. B. Denton, xxi. 49, 52. Effect of under-draining clay soils: J. B. Denton, 58; J. Evans, 91; J. Gibbs, 97.

Comparative temperature of land drained and undrained. J. B. Denton, xxi. 60; tables, 66-82; E. Chadwick, C.B., 94.

Depth of drainage in Holland. J. Gibbs, xx. 89, 97; S. Sydney, 96.

Effect of under-draining on the flow of perennial springs, streams, and rivers:

J. Simpson, xx. 212; Sir J. Rennie, 212; T. Hawksley, 215, 231; R. Rawlinson, 218, 219; J. Evans, 227; J. B. Denton, 229;—J. B. Denton, xxi. 59, 62, 63, 84, 121; G. P. Bidder, 83, 85, 109; Rev. J. C. Clutterbuck, 84; J. Simpson, 86; J. Evans, 92; S. Sydney, 95; G. W. Hemans, 99; T. Hawksley, 101; J. H. Lloyd, 111, 113; R. Field, 117; J. Brunlees, 120; J. Hawkshaw, 129;—Rev. J. C. Clutterbuck, xxii. 350; S. C. Homersham, 360. The Thames: Alderman Randall, 355.

— on the land. T. Hawksley, xx. 215.

Fen district. Sir J. Rennie, 98; T. Hawksley, 104, 105; J. Brunlees, 119; J. B. Denton, 134.

Formula for the escape of surplus water. J. H. Latham, xxxiii. 401; Col. Dickens, 420.

'Free soils,' method of under-draining: J. B. Denton, xxi. 49, 52. Effect of under-draining free soils, 54, 58.

— *versus* clay soils: J. B. Denton, xxi. 49-62, 121, 122, 124; tables, 66-82; J. Evans, 92; R. Field, 116.



**Drainage of land—under drainage—continued.**

Influence of under-drainage on the atmosphere, by Lord Palmerston. J. B. Denton, xxi. 126.

— of under-drainage on vegetation. J. B. Denton, xxi. 61.

Most suitable depth of under-drainage. T. Hawksley, xx. 215; R. Rawlinson, 219; R. B. Grantham, 228; J. B. Denton, 230; G. P. Bidder, 257; J. Gibbs, xxi. 88, 89; G. P. Bidder, 107, 108; J. Brunlees, 120; J. B. Denton, 123.

Pipe-drainage; under-drainage. R. B. Grantham, xix. 54, 124; J. B. Denton, 86, 122; J. Simpson, 89; G. P. Bidder, 105, 125; T. Hawksley, 115, 126; J. H. Jones, 125; R. B. Grantham, xx. 228.

Temperature of the soil raised by under-drainage. T. Hawksley, ix. 116.

Under-drainage at Hinxworth. Periods of discharge from under-drains in free soils, at Hinxworth: J. B. Denton, xxi. 52. Rate of discharge, 55, 56, 86; tables, 66–82. Periods of discharge at Hinxworth from under-drains in clay soils, 52, 57. Rate of discharge, 57, 58, 86; tables, 66–82.

— in agriculture. Sir J. Rennie, v. 111.

Water-levels; test-holes. J. B. Denton, xxi. 49, 55; tables, 66–82, 127.

**DRAINAGE OF TOWNS:—**

“Drainage of towns.” R. Rawlinson, xii. 25.—Discussion: R. Rawlinson, xii. 41, 43, 45, 53, 58, 100; G. Donaldson, 42, 43; Lord Ebrington, 44; W. Haywood, 45, 68; J. Murray, 53; T. Hawksley, 57, 58; Mr. Netherway, 59; H. Doulton, 59; R. Ritchie, 65; Mr. Parker, 66; J. W. Bazalgette, 66; T. Duncan, 69; T. Lovick, 69; T. Smith, 69; A. Francis, 78; J. Clifff, 78; C. E. Cawley, 79; J. Evans, 81; B. Baylis, 82; Mr. Plum, 82; C. May, 83; R. Stephenson, 84; G. P. Bidder, 88; J. Newlands, 90; J. Simpson, 92; J. Gibbs, 94; Mr. Newton, 95; J. Roe, 96; J. M. Rendel, 106.

— General principles and rules. R. Rawlinson, xii. 28; 39; W. Haywood, 47; T. Hawksley, 57; Toulmin Smith, 69; C. May, 83; R. Stephenson, 84; J. Newlands, 90; J. Simpson, 92; J. Gibbs, 94;—W. Donaldson, xlix. 204.

— Central administration. E. Chadwick, xxiv. 331.

— Discussion, xxii. 284. (1 plate.)

Houses on hill-sides. B. Latham, xlvii. 130.

Legislation. G. P. Bidder, xxiv. 350.

Water-carrying system preferable. A. Smee, xlv. 183; E. Monson, 197; R. Aitken, 198.

Berlin drainage. M. Mille, xlv. 315.

Birmingham. R. Rawlinson, xxiv. 320.

Brighton. “The Brighton intercepting and outfall sewers.” J. G. Gamble, xliii. 191. (4 plates.)—Discussion: H. M. Brunel, xliii. 204, 205; H. Hayter, 204, 222; Capt. Galton, 205; S. C. Homersham, 205; G. Redgrave, 205; R. W. P. Birch, 206; T. E. Harrison, 206; J. Abernethy, 206; Sir J. Bazalgette, 208; E. Monson, 213; J. Aird, 215; P. C. Lockwood, 216; J. Grant, 220; J. Hanvey, 221; G. R. Stephenson, 224.

Bristol. “Account of the recent improvements in the drainage and sewerage of Bristol.” J. Green, vii. 76. (1 plate.)—Discussion: Dean of Westminster (Dr. Buckland), vii. 84, 92; Lord R. Grosvenor, 86; J. Green, 87; J. Smith (Deanston), 87; T. Wicksteed, 96, 102; S. M. Peto, 94; E. Chadwick, 95; Dr. Ure, 97; C. May, 100; F. Braithwaite, 101; J. Walker, 104.

Drainage of towns—*continued.*

- Croydon. T. Hawksley, xx. 233, 234; J. Fenton, 235; W. Drummond, 238.
- Dantzic. The drainage system of Dantzic. H. von Winter, xxxix. 379.
- Dundee. "Description of the drainage of the borough of Dundee." J. Fulton, xxii. 262.—Discussion: *vide* A. Williams' paper on the drainage of Newport (*seq.*).
- Düsseldorf. On the drainage of Düsseldorf. H. Ebner, xlv. 317.
- Edinburgh. "Description of the new sewer in the valley of the Cowgate, Edinburgh." G. Smith, i. (1841), 157.
- Hamburg. Sewerage of Hamburg. C. Fowler, xiii. 78; G. P. Bidder, 78; C. Manby, 79; J. Simpson, 81.
- Ipswich. "Description of a plan for carrying off an accumulation of water from the warehouses, cellars, &c., near the wet dock at the port of Ipswich." G. Hurwood, ii. (1843), 183.
- Liège system of drainage: note on the sewers of Liège. M. Mottart, lvi. 343.
- London. "On the causes of accumulation of deposit in sewers and on the hitherto generally prevalent mode of removing the same; with a description of a new flushing apparatus used for cleansing the sewers in the Holborn and Finsbury divisions." J. Roe, ii. (1842), 132.
- "On the drainage of the district south of the Thames." J. T. Harrison, xiii. 64.—Discussion: J. M. Rendel, xiii. 78, 83, 100; C. Fowler, 78, 107; G. P. Bidder, 78, 103, 115; C. Manby, 79, 118; J. Simpson, 81, 94, 100, 111, 118; J. T. Harrison, 81, 99, 101; J. R. McClean, 83; W. Haywood, 88, 98, 117; J. W. Bazalgette, 92, 100; J. Phillips, 94; T. Hawksley, 95, 109, 117; A. Pellatt, 97; Capt. W. S. Moorsom, 98; C. May, 99; C. B. Vignoles, 100; G. Donaldson, 108; J. Hawkshaw, 110; J. E. Errington, 118.
- "On the main drainage of London, and the interception of the sewage from the river Thames." J. W. Bazalgette, xxiv. 280. (9 plates.)—Discussion on this Paper and H. B. Hederstedt's Paper on the drainage of Paris (*seq.*): J. W. Bazalgette, 315, 352; G. R. Burnell, 316; R. Rawlinson, 317; Admiral Sir E. Belcher, 321; W. Haywood, 321; F. J. Bramwell, 326; J. Hawkshaw, 329; E. Chadwick, C.B., 331; G. H. Phipps, 339; J. F. Bateman, 340; G. W. Hemans, 340, 350; J. Grant, 341; C. B. Vignoles, 346; G. P. Bidder, 346; J. Lemon, 350; J. R. McClean, 358.
- Sewerage of London. Historical notice. J. W. Bazalgette, xxiv. 281, 352, 355; J. Hawkshaw, 330; E. Chadwick, 332; G. H. Phipps, 339; J. Grant, 344; G. P. Bidder, 346.
- Open sewers. Dr. Buckland, vii. 93.
- Plans for the drainage of London. J. R. McClean, xiii. 83.
- Conclusions of the Government referees on the main drainage question. W. T. Haly, xx. 245.
- Data for estimation of quantity of sewage and dimensions of sewers. J. W. Bazalgette, xxiv. 290, 309; R. Rawlinson, 317; W. Haywood, 321, 324.
- Proportion of rainfall in the sewers. J. W. Bazalgette, xxiv. 292; W. Haywood, 321, 322.
- Report from the committee of the Metropolitan Commissioners of Sewers, on the plans for the drainage of London, xxiv. 513. Report of Mr. Frank Forster on the Surrey and Kent drainage, xxiv. 518. Report of

Drainage of towns—*continued.*London—*continued.*

Mr. Frank Forster on the drainage of the districts north of the river Thames, xxix. 521.

— Sewers for the main drainage of London. J. Grant, xxxii. 275.

— Cost of the main drainage. R. Hassard, xlix. 195.

— drainage of, *versus* drainage of Paris. H. B. Hederstedt, xxiv. 279; J. W. Bazalgette, 315, 357; G. R. Burnell, 316; G. W. Hemans, 340; C. B. Vignoles, 346; J. Lemon, 352;—F. Target, liii. 195; cost, 204.

Newport, Monmouthshire. "Description of the sewerage and drainage works of Newport, Monmouthshire." A. Williams, xxii. 273. (1 plate.)

— Discussion on this paper and J. Fulton's paper on the drainage of Dundee (*ante*): J. Fulton, xxii. 284; A. Bassett, 284; T. O. Thorburn, 284; R. Rawlinson, 285, 298; J. Newton, 295; W. Merry, 297; J. Grant, 299; J. Lovegrove, 301; A. Williams, 303; J. Hawkahaw, 304.

Paris. Sewerage of Paris: historical notice. H. B. Hederstedt, xxiv. 257.

— System of drains. G. R. Burnell, xxiv. 316; R. Rawlinson, 318; W. Haywood, 325; G. W. Hemans, 340; C. B. Vignoles, 346; J. Lemon, 350; J. W. Bazalgette, 352.

— system of sewers. W. Haywood, xii. 47. (1 plate.)

— "An account of the drainage of Paris." H. B. Hederstedt, xxiv. 257. (1 plate.)—Discussion: *vide* J. W. Bazalgette's paper on the main drainage of London (*ante*).

— "On the main drainage of Paris, and the utilisation of its sewage." (S.) F. Target (3 plates), liii. 193.

— The sewers of Paris (their development), lvi. 342.

Richmond. "An account of the drainage of the town of Richmond, Surrey, under the authority of the Metropolitan Commissioners of Sewers in 1851." G. Donaldson, xi. 407.—Discussion: G. Donaldson, xi. 413, 415, 420; C. L. Hertalet, 413; W. Thorold, 414; W. Haywood, 414, 420; J. W. Bazalgette, 415; Prof. W. Hosking, 416; T. Hawkaley, 416; J. Leslie, 419; J. Simpson, 419; W. Lavers, 419; R. Stephenson, 420.

Stuttgart. The drainage of Stuttgart. Dr. v. Hack, xli. 316.

Tottenham. "On the separate system of sewerage the district of Tottenham, Middlesex, in 1851-2." (S.) J. Pilbrow, xli. 171.

Westminster. "The sewerage of the city of Westminster described and delineated." J. E. Jones, i. (1839) 63.

See *Sewage; Sewers, Sewerage.*

## DRAINAGE OF TOWNS—PIPE DRAINAGE:—

Flow of water in drain-pipes. T. Hawkaley, xi. 418.

Pipe-drainage: T. Wicksteed, vii. 103;—W. Haywood, xi. 419, 420; J. W. Bazalgette, 415; Prof. W. Hosking, 416; T. Hawkaley, 416; W. Lavers, 419; G. Donaldson, 421;—R. Rawlinson, xii. 36, 41, 43, 45, 100; G. Donaldson, 42; Lord Ebrington, 44; W. Haywood, 45, 68; at Liverpool, 49; J. Murray, 53; T. Hawkaley, 58; J. W. Bazalgette, 61, 66; H. Doulton, 61; R. Jebb, 62; R. Ritchie, 65; Mr. Parker, 66; T. Duncan, 69; T. Lovick, 69; Toulmin Smith, 72; Mr. Holland, 76; A. Francis, 78; J. Cliff, 78; J. E. Cawley, 79; J. Evans, 81; B. Baylis, 82; Mr. Plum, 82; R. Stephenson, 86; G. P. Bidder, 88; J. Newlands, 91; J. Simpson, 92; J. Newton, 95; J. Roe, 96;—J. T. Harrison, xiii. 72,

**Drainage of towns—pipe drainage—continued.**

77, 99; W. Haywood, 90; J. Simpson, 94;—E. Chadwick, xxiv. 334; J. F. Bateman, 340; J. Grant, 344; J. W. Bazalgette, 354, 355.

Pipes on the London and Croydon and other railways. T. Hughes, iv. 78.

Scale of dimensions for stoneware pipes. G. Donaldson, xi. 411. Construction: R. Rawlinson, xii. 36, 45; H. Doulton, 59; J. Cliff, 78. Strength: Mr. Netherway, xii. 59; H. Doulton, 60, 63.

Watson's drain pipes, iii. 171.

Dundee. J. Fulton, xxii. 264, 268.

Newport. A. Williams, xxii. 276, 280; T. C. Thorburn, 285.

Richmond. G. Donaldson, xi. 407, 420; J. W. Bazalgette, 415.

Salisbury. E. Chadwick, xxiv. 334.

**DRAINAGE OF TOWNS—OUTFALLS FOR SEWAGE:—**

Seaboard and tidal outfalls. J. Abernethy, xlv. 188; Sir J. W. Bazalgette, 194;—C. N. Bazalgette, xlviii. 156, 159, 249; W. Crookes, 165; C. E. Austin, 176; Dr. Frankland, 198.

Aberdeen. J. Abernethy, xliii. 207, 208.

Bombay. R. Aitken, xlv. 198; xlix. 203.

Brighton, xliii. 197, 218, 217, 220, 223.

Dover. J. Hanvey, xliii. 221.

Liverpool. J. N. Shoolbred, xlviii. 224.

London: J. R. McClean, xiii. 87; Capt. W. S. Moorsom, 98; G. P. Bidder, 108;—J. Abernethy, xliii. 208; Sir J. W. Bazalgette, 209; J. Grant, 220;—J. Abernethy, xlv. 190;—W. Hope, xlviii. 181; D. T. Ansted, 215. Silting up of the river; J. B. Denton, xlviii. 187; J. Abernethy, 218; W. Shelford, 222; Sir J. W. Bazalgette, 225; J. Lemon, 236; R. D. M. Littler, Q.C., 219.—T. W. Keates, xlix. 177; G. E. Eachus, 179; J. Mansergh, 190.

Margate. J. Abernethy, xlv. 190.

Ramsgate. J. Abernethy, xliii. 207.

Southport. J. N. Shoolbred, xlviii. 224.

**DRAWBRIDGES.** See *Bridges*, movable—drawbridges or bascules.

**DRAWING INSTRUMENTS.** Penrose's screw helicograph and sliding helicograph, x. 245.

**DREDGING:—**

Cost of dredging. J. B. Redman, xxxvi. 178.

Dredging by injection and suction, lvi. 336.

Utility of dredging in rivers. W. A. Brooks, xxvi. 408, 421.

Bilbao. Dredging, Sestao harbour. F. C. Barron, li. 244; table, 255.

Clyde. W. Bald, v. 320, 330. Various modes of dredging. J. Deas, xxxvi. 145; results, 148, 195; tables, 156, 158 to 169; J. F. Bateman, 173.

Cork river. Result of dredging. Mr. Lecky, xxiv. 83.

Newry. Sir J. Rennie, x. 284.

Ouse river. Dredging shoals by a sliding movement. H. Reuton, i. (1840), 26.

Seine. Dredging of the river Seine. H. B. Hederstedt, xxiv. 27.

Suez. Dredging of the roadstead of Port Said, xliii. 362.

Sunderland harbour, quantity and cost of dredging. J. Murray, vi. 279.

**DREDGING MACHINES:—**

- Adaptation of the American excavator for dredging. J. B. Hyde, iv. 400.  
 Bull's self-acting dredgers for bridges on the Delhi railway. C. Stone, xxxix. 213. At the Ravi bridge, Punjab Northern State railway. R. T. Mallet, liv. 65. At Alexandra bridge, H. Lambert, 83.  
 "Description of a machine called a floating clough." G. Ellis, i. (1839), 48.  
 Furness and Slater's telescopic dredger (sinking foundations). E. Bazalgette, liv. 16, 54, 55; Sir J. W. Bazalgette, 32; G. H. Tait, 53.  
 Propeller dredger, by J. J. van Rietscheten. C. J. Appleby, lviii. 144.  
 Caledonian canal. "Description of a steam dredging engine used on the." W. Elliot, ii. (1842), 149.  
 Carlingford Lough. Dredging machine for the bar. J. Barton, xlv. 133.  
 Clyde. Dredging stock. J. Deas, xxvi. 149; table, 157.  
 Danube. Method of discharging dredge boats employed on the works for regulating the Danube at Vienna. H. Hersent, xl. 318.  
 Fucino. Dredging machine used in the works for the drainage. S. Brisse, xlix. 342.  
 Garonne. Dredger on the Garonne. M. Thanneur, xl. 318.  
 Holland. Ship canal. J. Hawkshaw, xxvi. 453.  
 Hull. Horse-dredging machine, Old dock. J. Timperley, (T.) i. 8.  
 — Dredging machine, Humber dock. J. Timperley, (T.) i. 22.  
 Hussum. On an iron steam dredger. E. W. Matthiessen, li. 365.  
 Stour. "Account of a machine for cleansing and deepening small rivers, in use on the Little Stour river, Kent." W. B. Hays, (T.) ii. 181.  
 — "Account of a machine for cleansing and deepening small rivers, in use on the Little Stour river, Kent." W. B. Hays, i. (1837), 26.  
 Suez Canal. Col. Sir W. T. Denison, K.C.B., xxvi. 445, 474; J. Abernethy, 450; R. Rawlinson, C.B., 455.  
 Thames Embankment. Bag and spoon dredger. T. D. Ridley, xxxi. 9.  
 Toulon. Steam dredging machine at Toulon. M. Hersent, liv. 338.

**DRILLS, rock.** See *Rock-drills*.

**DRY DOCKS.** See *Docks*, dry or graving.

**DRY ROT.** H. P. Burt, xii. 209; J. T. Cooper, 230.  
 See *Timber*.

**DYNAMICS, electro.** See *Electro-dynamics*.

**DYNAMITE.** See *Explosive Agents*.

**DYNAMO-ELECTRIC MACHINES.** See *Electric Light* machines; *Light-house* illumination.

**DYNAMOMETERS:—**"Description of a dynamometer, or an instrument for measuring the friction of roads, railways, canals, &c." H. Carr, i. (1840), 52.  
 Dynamometer for dynamo-electric machines. Dr. Higgs and J. R. Brittle, iii. 54; Dr. C. W. Siemens, 55.  
 Moseley's Indicator, ii. (1842), 102.  
 New Dynamometer for locomotives. H. Killiches, liii. 342.  
 Russell's dynamometer, employed by, v. 231.  
 Turin. On certain dynamometrical instruments lately acquired by the Royal Technical Institute, i. 193.

**EARTH:—**

Rotation of the earth. "On the demonstration, by means of two pendulums, of the rotation of the earth." H. Cox, x. 320.

— Experiments with a pendulum vibrating through great arcs. M. Dejean de Fonroque, lvii. 413.

Temperature of the earth. See *Temperature of the Earth*.

**EARTHQUAKES:—**

Japan. R. H. Brunton, xlvii. 6, 28. Elastic houses, 7. Structures for resisting earthquakes: W. Lloyd, xlvii. 30, 32; E. Woods, 33; R. H. Brunton, 35.

Japanese and other constructions to withstand earthquakes. M. Lescaze, xlix. 292.

**EARTHWORKS.** Comparative costs for excavation; earthwork experiments on the Sirhind Canal. J. D. Derry, Lieut. J. F. Miller, Major R. Home, and Col. J. Crofton, xli. 234.

See *Railway Cuttings and Embankments*.

**EDUCATION AND BUSINESS OF THE CIVIL ENGINEER.** J. Walker, iii. 27;—Sir. J. Rennie, v. 116;—J. Fowler, xxv. 208;—C. H. Gregory, xxvii. 181;—C. Reilly, xxix. 94; C. B. Vignoles, 316;—T. Hawksley, xxxiii. 350;—T. E. Harrison, xxxvii. 227;—J. F. Bateman, lii. 6.

"Description of a civil engineer," by T. Tredgold, xxvii. 181.

Germany. J. S. Russell, xxii. 35; R. Mallet, 37, 43; J. G. C. Curtis, 41; C. H. Gregory, 42.

Roorkee College, Bengal Presidency. Maj.-Gen. G. B. Tremenneere, xvii. 495.

**ELECTRICITY:—**

Application of electrical science in engineering in foreign countries, 1874–78. P. Higgs, lv. 308.

Applications of electricity to mining industry, torpedoes, &c. M. Champion, xli. 267.

Automatic current regulator. M. Hospitalier, lvi. 384.

Blasting by, historical notice. Sir J. Rennie, v. 104.

Carbon battery (for producing electricity). P. Jablochkoff, lii. 396.

Common law in reference to electric induction. R. Clausius, li. 397.

Electric transmission by the earth. T. du Moncel, xlvii. 403.

Electrical extension of Fourier's formulæ. A. Cornu, liii. 389.

Electrical units in absolute measure. E. E. Blavier, xl. 364.

Electricity as a cause of explosion of steam boilers. W. K. Hall, xv. 282.

— as a ferment. M. Berthelot, lviii. 429.

— by the combustion of charcoal. W. R. Grove, xvi. 403.

— of thermal waters. Prof. Thury and Dr. A. Minnich, xlii. 388.

— engraving on glass by, G. Planté, lii. 403.

Fluid dielectric constants. P. Silow, xlv. 336.

Glass for electrical insulation. A. J. von Oettingen, liii. 388.

Increase of length in electrical conductors. R. Blondlot, liv. 386.

Influence of electricity on evaporation. M. Mascart, liii. 390.

Magnetic effect of electric convection. H. A. Rowland, liii. 388.

Maximum electrical work. M. Gessé, lviii. 415.

New studies on the current of electrical machines. M. Rossetti, xl. 368.

**Electricity—continued.**

- Phenomena of electric oscillation. L. Mouton, xli. 375.  
 Ploughing by electricity. H. Fontaine, lvii. 419.  
 Precipitation of copper by electricity. N. S. Keith, lii. 404.  
 Relation of light and electricity. W. G. Adams, xli. 169.  
 Resistance to the passage of an electrical current at the points of contact of metallic conductors. F. C. G. Müller, xli. 339.  
 Transmission of sounds by electricity, l. 309.  
 Unipolar induction, atmospheric electricity, and the aurora borealis. E. Edlund, lviii. 430.  
 Variations of intensity of electric currents at bad contacts. T. du Moncel, liv. 385.  
 — of electric currents transmitted through imperfect conductors. T. du Moncel, lv. 428.  
 Velocity of transmission of electricity on metallic conductors. J. Glaisher, xi. 382;—F. R. Window, xvi. 197, 198, 200, 207, 209; C. T. Bright, 210; J. L. Clark, 211; C. Varley, 214; W. Whitehouse, 215, 217.  
 — underground wires. O. Frölich, lvii. 415.  
 — measurement in suspended wires. W. Siemens, xli. 332.

**ELECTRICITY, VOLTAIC:—**

- Clamond's thermo-pile. T. du Moncel, xli. 338.  
 Comparative merits of the voltaic batteries of Callaud, Marié-Davy, and Leclanché. E. Caël, lviii. 417.  
 Distribution of temperature in wires conducting galvanic currents. Prof. H. Streintz, xlix. 386.  
 Improvement in the manganese battery. G. Leclanché, liv. 384.  
 Influence of heating on the galvanic resistance of hard-drawn wires. O. Chwolson, lii. 402.  
 Maxima conditions for galvanometers. T. du Moncel, l. 307.  
 New arrangements of the galvanometer for absolute measurements. N. D. C. Hodges, lvii. 414.  
 New constant-current voltaic element. A. Héraud, lvi. 383.  
 New form of tangent galvanometer for the measurement of powerful currents. E. Obach, lv. 429.  
 New insulating support for static electricity. E. Mascart, liv. 385.  
 New manganese battery. A. Gaiffe, liii. 388.  
 New peroxide-of-manganese battery. G. Leclanché, xlvii. 412.  
 New phenomenon of static electricity. G. Govi, lvi. 382.  
 Practical method for trial of batteries. G. Leclanché, xlviii. 365.  
 Relation between galvanic resistance and motion of conductor. E. Edlund, xliii. 432.  
 Rheostatic machine. G. Planté, lii. 397.  
 Sonorous volta meter. T. A. Edison, lv. 438.

**ELECTRICITY—ELECTRIC CONDUCTIVITY:—**

- Electric conductivity. T. du Moncel, xlix. 386.  
 — of inferior conductors. T. du Moncel, xli. 334.  
 — of manganese oxides and various carbons. W. Beetz, xli. 375.  
 — of water and other inferior conductors. F. Kohlrausch, xlviii. 366.  
 Influence of heat and light on the electrical conductivity of selenium and some metals. W. Siemens and G. Hansemann, lii. 400.

**ELECTRICITY—ELECTRIC (LIGHTNING) CONDUCTION :—**

- Automatic discharge for lightning conductors. J. Serra-Carpi, xlv. 378.  
 Lightning conductors, xliii. 431. E. Saint-Edme, xlv. 337.  
 Lightning rods. R. S. Brough, lvii. 421.

**ELECTRICITY—ELECTRIC CONDUCTORS, transmission of power by. Dr. C. W. Siemens, xlix. 33.****ELECTRICITY—ELECTRIC COUNTER FOR MACHINERY. S. Bozzone, xvii. 421.****ELECTRICITY—ELECTRIC LAMP :—**

- Baro-electric light regulator. M. Bouteilloux, lv. 435.  
 Division of the electric light. E. Reynier, lvi. 386.  
 Divisibility of the electric light. L. Denayrouze and P. Jablochkoff, l. 312.  
 Manufacture of carbon conductors for the electric light. F. Carré, xlix. 333.  
 Motor for electric lamps. M. de Mersanne, lv. 434.  
 Thermo-electric lighting batteries. T. du Moncel, lviii. 426.

Jablochkoff. A new electric lamp. P. Jablochkoff, xvii. 417.

— Electric lamps. Dr. Siemens, lii. 60; W. H. Preece, 73; W. A. Gorman, 85.

— Improvements in the Jablochkoff candle. L. de Lestrade, lvii. 416.

Jamin. Electric light; lamp. J. Jamin, lvii. 417.

Krupp. Electric lamps (Krupp's, Siemens', &c.), lviii. 425.

Reynier. Electric lamp with oblique circular rheophores. E. Reynier, l. 312.

Stöhren. Simple electric lamp. E. Stöhren, jun., lvii. 416.

Thomson. New system and lamp for electric lighting. Profs. E. Thomson and E. J. Houston, lvi. 386.

**ELECTRICITY—ELECTRIC LIGHT :—**

Amelioration of the atmosphere by electric illumination, lv. 164.

Application of Leyden jars to electric lightning. P. Jablochkoff, lii. 405.

Electric light—its lighting power for force expended: workshops. P. Heilmann-Ducommun, xlvii. 418.

— employment of, for public works. F. W. Reeves, lii. 95; T. Wrightson, 97.

— for industrial purposes (cost). H. Fontaine, xlv. 339.

— in navigation (on ship-board). H. Fontaine, xlv. 372.

Electric lighting. J. Jamin, liii. 391.

— *versus* gas-lighting. P. Heilmann-Ducommun, xlvii. 419;—Dr. P. Higgs and J. R. Brittle, lii. 48, 89; Dr. J. Hopkinson, 69; E. A. Cowper, 70; R. H. Brunton, 79; Sir W. Thomson, 83; C. Woodall, 86.

— in industrial establishments, liv. 382.

— workshops. C. Rousseau, xlix. 395.

Flickering of electric light. C. H. Gregory, lii. 59; Dr. C. W. Siemens, 60.

History of electric lighting. H. Fontaine, xlix. 394.

Industrial electric lighting. P. Delahaye, lii. 405.

Photometric measurement of electric light. P. Heilmann-Ducommun, xlvii. 42;—J. N. Douglass, lii. 71, 77.

Power required for generating the electric light. Dr. C. W. Siemens, xlix. 33. Light at the works of Messrs. Head, Wrightson, and Co., xlix. 46.



## ELECTRICITY—ELECTRIC-LIGHT MACHINES:—

Dynamo-electric machine: invention. S. A. Varley, lii. 65; H. Werdermann, 67;—Dr. Tyndall, lvii. 63; J. N. Douglass, 88, 163; S. A. Varley, 157.

— Dynamo-electric lighting machine (dynamo-electric *versus* magneto-electric). Dr. Werner Siemens, xlix. 397.

— Dynamo- and magneto-electric machines of the Lontin system, li. 397.

— "Some recent improvements in dynamo-electric apparatus." R. W. H. P. Higgs, and J. R. Brittle (2 plates), lii. 36.—Discussion: Dr. C. W. Siemens, lii. 57, 60, 80; C. H. Gregory, 59; W. Atkinson, 59; W. H. Barlow, 60, 94; Dr. J. Tyndall, 61; A. Niaudet, 63; S. A. Varley, 65; H. Werdermann, 67, 85; Dr. J. Hopkinson, 68; E. A. Cowper, 70; J. N. Douglass, 70, 77, 83; W. H. Preece, 72; H. Fontaine, 75; F. Higgins, 75; J. N. Shoolbred, 77; R. H. Brunton, 78; Sir W. Thomson, 81, 83; Hon. R. C. Parsons, 84; W. A. Gorman, 85; C. Woodall, 86; Dr. Higgs, 89; J. R. Brittle, 92; C. Brooke, 94; T. W. Reeves, 95; T. Wrightson, 97.

— Siemens's dynamo-electric machine. Dr. P. Higgs and J. R. Brittle, lii. 39.

— Resistance and efficiency of dynamo-electric machines. Dr. P. Higgs and J. R. Brittle, lii. 53; Dr. J. Hopkinson, 68. Dynamometer, 54; Dr. C. W. Siemens, 58.

Gramme. Experiments with the Gramme electro-magnetic (magneto-electric) machine (consumption of power). H. Tresca, xliv. 338.

— magneto-electric machine. Dr. J. Tyndall, lii. 62; A. Niaudet, 63; S. A. Varley, 66; W. H. Preece, 74; H. Fontaine, 75; H. Werdermann, 85; F. W. Reeves, 95.

— Electric lighting. H. Fontaine, liv. 382.

— Theory. A. Breguet, lvi. 384; lviii. 421.

Magneto-electric and electro-dynamic machines (theory). M. Mascart, l. 302.

— Experimental researches on magneto-electric machinery (theory). MM. Mascart and Angot, lv. 430.

— Alliance magneto-electric machine. Dr. J. Tyndall, lii. 61; F. Higgins, 75; J. N. Douglass, 77.

— Magneto-electric machines (constructional details). A. Breguet, lviii. 421.

See *Lighthouse illumination*—Electric-Light Machines.

ELECTRICITY—ELECTRIC SPEECH-WRITING. M. Boudet de Paris, lvii. 418.

ELECTRICITY—ELECTRIC TELEGRAPH. See *Telegraph*, electric.

ELECTRICITY—ELECTRIC THERMOMETER. C. W. Siemens, xx. 58.

## ELECTRICITY—ELECTRO-DYNAMICS:—

Derivation of a new fundamental law in electro-dynamics. Prof. R. Clausius, xlvii. 413.

Extension of Carnot's thermo-dynamic theorem to electrical phenomena. G. Lipmann, xlvii. 373.

**ELECTRO-MAGNETISM :—**

Attraction time of electro-magnets. Dr. Schüebeli, xlii. 390.

Conditions of maximum magnetisation of electro-magnets. T. du Moncel, lii. 399.

Effect of thin plates of iron used as armatures for electro-magnets, and a new form of induction coil. J. Trowbridge, xlv. 372.

"Electro-magnetism as a motive power." R. Hunt, xvi. 386.—Discussion : Prof. W. Thomson, xvi. 400; R. Hunt, 401, 414, 418; W. R. Grove, 402; Prof. Tyndall, 404; C. Cowper, 405; W. A. Smee, 411; Mr. Petrie, 412; G. P. Bidder, 413; T. Allan, 416; W. Gravatt, 419; E. Highton, 420; R. Stephenson, 420.

Electro-magnets. T. du Moncel, l. 301.

— Principle and action : R. Hunt, xvi. 386, 392, 414; by Prof. Jacobi, 389; Mr. Petrie, 412; T. Allan, 416. Comparative force at rest and in motion : R. Hunt, xvi. 395, 402, 414; Prof. J. Tyndall, 405.

— Proportions. T. du Moncel, li. 395.

— Roberts's, R. C. Cowper, xvi. 408.

— Subdivided. P. Germain, lv. 430.

— Winding electro-magnets for maximum effect. R. S. Brough, lii. 397.

Variation of current under modification of pressure-contact. M. Trève. lv. 429.

**ELECTRO-MAGNETIC ENGINES :—**

Cost of zinc *versus* cost of coal. R. Hunt, xvi. 398, 401; Prof. W. Thomson, 400; W. R. Grove, 402; Prof. Tyndall, 404; C. Cowper, 409; Mr. Petrie, 413; G. P. Bidder, 414; Dr. Joule, 415; A. Smee, 417; W. Gravatt, 419; R. Stephenson, 420.

Electro-magnetic engines, by Salvatore dal Negro: R. Hunt, xvi. 388; by Prof. Botto, 389, 402; by Prof. Jacobi, 390; by T. Davenport, 390; by Mr. Taylor, 391; by R. Davidson, 391, 406; by Prof. Page, 391, 396; by Mr. Talbot, 391; by Hjörth, 391, 394, 414, 419.

Electro-magnetic propulsion of boats, by Prof. Jacobi, xvi. 390; R. Hunt, xvi. 401; W. R. Grove, 404.

Allan's (T.) engine, xvi. 416.

Cowper's (C. and E. A.) engines. C. Cowper, xvi. 405, 408.

Davidson. Electro-magnetic propulsion on railways. R. Hunt, xvi. 391.

Deprez's electro-motor. Count T. du Moncel, lviii. 425.

Joule and Scoresby's engine. R. Hunt, xvi. 398; Prof. W. Thomson, 400.

**ELECTRO-METALLURGY :—**

Automatic current regulator. H. Hospitalier, lvi. 384.

Continuous current magneto-electric machines for electro-deposition (of metals). M. Gramme, l. 306.

Electro-plating. M. Piaget, vi. 355.

Employment of magneto-electric machines for electrotyping and electro-plating. Dr. P. Higgs and J. R. Brittle, lii. 53.

**ELECTROMETER :—**

Application of the electrometer to measurement of current-intensity polarisation, and resistance. F. Fuchs, xliii. 437.

Remarks on Thomson's electrometer. K. A. Holmgren, xli. 340.

**EMBANKMENTS.** See *Dams; Railways; Reservoirs; Rivers.*

**ENGINES.** See *Air-heated engines; Gas engines; Locomotives; Marine engines; Steam engine.*

**ENGINE-MEN,** examination of, and certificates for, by the Board of Trade.  
E. Reynolds, li. 16; A. Holt, 77.

**ENGINEER (CIVIL).** See *Education.*

**ENGINEERING :—**

Historical notices of engineering. Sir J. Rennie, v. 19;—J. Field, vii. 32;

—T. Hawksley, xxxiii. 338. See *Addresses of Presidents.*

"Progress of public works engineering in foreign countries, as recorded in the Abstracts of Papers in the Proceedings during the years 1874-78." (S.)

L. F. Vernon Harcourt, lv. 275.

Rise and progress of engineering on the continent. C. B. Vignoles, xxix. 274, 291.

Germany (North). Engineering works. C. B. Vignoles, xxix. 291.

Japanese engineering. W. F. Potter, lvi. 6.

Sweden. "Engineering." (S.) C. P. Sandberg, xxxix. 191.

**ENGLISH CHANNEL,** charts of. J. T. Harrison, vii. 358.

— coast. See *Coast.*

**EREMACAUSIS,** or slow combustion :—

Decay of timber due to eremacausis. P. H. Boutigny, xii. 239.

Decomposition of sewage by eremacausis. T. Hawksley, xx. 250.

Deposit by eremacausis in a copper pipe at a brewery. R. Davison, ii. (1848), 170.

Heat generated by oxidation of iron. H. C. Forde, xxi. 500, 501.

Slow combustion of materials (leather and vegetable substances) used in engineering. E. Clark, xxvii. 556.

Slow oxidation and heating of cotton waste soaked in varnish oils.  
H. Tapezierer and Dr. Rohrig, liii. 399.

**ESTUARIES.** See *Rivers.*

**ETHER:** Latent heat of ether. C. W. Siemens, xviii. 290.

**ETHER ENGINES.** See *Marine engines and boilers.*

**EUDIOMETER.** J. Richardson, xii. 273, 281.

**EVAPORATION,** influence of electricity on. M. Mascart, liii. 390.

— See *Locomotive boilers; Marine engines and boilers; Steam boilers.*

— of snow. J. F. Bateman, xxxix. 34.

— of superheated liquids. D. Gernez, xlv. 357.

**EXCAVATING MACHINERY :—**

American excavator. J. B. Hyde, iv. 399.

Bull's dredger, or excavator, for deep well-foundations for bridges. C. Stone, xxxix. 213; jumper, 214.

Diack's excavator for bridge foundations, Japan. W. F. Potter, lvi. 5.

**Excavating machinery—continued.**

- Excavating machine for light earthworks of railways, in America. C. D. Fox and F. Fox, xxxix. 77.
- Excavators, &c., employed on the Danube Regulation Works and the Gand and Terneuzen canal, lv. 378.
- Fouracre's excavating machine for sinking cylinders: spider for loosening the soil. J. W. Johnson, liv. 51; R. T. Mallet, 67.
- Gatwell's excavating apparatus. Col. Peile, R.E., xlviii. 103.
- Hydraulic digger, in California. F. J. Bramwell, xxviii. 352.
- Ives's excavator, for deep well foundations. C. Stone, xxxix. 214.
- Milroy's excavator. "Description of apparatus for excavating under water, and for sinking cylinders." J. Milroy, xxviii. 339.—Discussion on this Paper and Mr. I. Bell's Paper on sinking wells for foundations of bridge over the Juma. (FOUNDATIONS, CYLINDER.)—H. J. Kennard, xxviii. 345; J. W. Bazalgette, 347; J. Phillips, 347; E. A. Cowper, 348; J. Milroy, Jun., 349; I. Bell, 350; F. J. Bramwell, 351; J. B. Redman, 355; J. D. Baldry, 356; J. Milroy, 357; J. Milroy, xxxv. 191, 207.
- "Miser," for sinking wells. J. Simpson, ii. (1842), 64; R. Davison, 192;—T. Clark, ii. (1843), 59; F. Braithwaite, 59; J. Farey, 59.
- "Phaora" or phoura, and the "Jham," in India. Capt. H. Goodwyn, R.E., ii. (1842), 63; I. Bell, xxviii. 325.
- Reeve's vacuum process of excavation for cylinder foundations. W. Shelford, liv. 28.
- Rotary plough, for sinking cylinders, Gorai bridge, Eastern Bengal railway. B. Leslie, xxxiv. 9.
- Sand-pump, Kennard's. I. Bell, xxviii. 334, 337; H. J. Kennard, 345, 346.
- Sand-pump, Gen. Sooyamith's air lift. C. Sooyamith, lvii. 829.
- 347; F. J. Bramwell, 352;—C. Stone, xxxix. 213;—H. Lambert, liv. 77.
- Sand-pumps for foundations of Jhelum bridge, Punjab, Northern State railway. F. M. Avern, liv. 96.
- Sand-shell pump, Huelva pier. T. Gibson, liii. 135.
- Screw-pans for sinking cylinders. Loch Ken viaduct, Portpatrick railway. E. L. I. Blyth, xxi. 260.
- Steam navy. "Description of the excavating machine, or steam navy, with the results of its use, on the West Lancashire railway." (S.) (1 plate.) C. D. Fox, lii. 250.
- "Remarks on steam-excavating apparatus, and its results in use." (S.) Ruston, Proctor and Co., lii. 266.
- "Results of the working of a steam excavator on the Castle Eden and Stockton railway." (S.) H. M. Whitley, lii. 259.
- "— of a steam navy at the West Hartlepool docks." (S.) C. A. Harrison, lii. 265.
- "— of Dunbar and Ruston's steam navy." (S.) J. Brand, lii. 257.
- Steam navy *versus* hand labour. C. D. Fox, lii. 255; J. Brand, 258; Ruston, Proctor and Co., 267.
- See *Boring* and *Boring Apparatus*; *Dredging Machines*; *Foundations*, cylindrical, sinking, &c.; *Wells*, well-sinking, and boring.

**EXCAVATION.** Comparative cost of manual labour and steam power, xli. 234.

**EXHIBITION OF 1851:**—"On the construction of the building for the exhibition of the works of industry of all nations in 1851." M. D. Wyatt, x. 127. (1 plate).—Discussion: C. B. Vignoles, x. 165; M. D. Wyatt, 165, 190; R. Turner, 166, 186; J. S. Russell, 170; J. Paxton, 172; C. H. Wild, 172; J. M. Heppel, 174; Prof. Airy, 177; J. Freeman, 180; Gen. Sir C. W. Pasley, 180; A. J. Robertson, 180; A. Doull, 185; C. Fox, 188; A. Pellatt, 190; C. H. Gregory, 191; W. Cubitt, 191.

**EXPANSION AND CONTRACTION OF LARGE IRON STRUCTURES:—**

Expansion of cast-iron by heat. G. Rennie, (T.) iii. 215.

— wrought-iron by heat. G. Rennie, (T.) iii. 218.

"Expansion of Arches." G. Rennie, (T.) iii. 201; G. Rennie, i. (1840) 4.

Expansion and contraction of rails in place. See *Permanent Way; Rails*.

Expansion of stone bridges. G. Rennie, (T.) iii. 214.

Investigation of the strains produced in an iron arch, by contraction or expansion of the metal. W. Airy, xxxiii. 141.

Water mains, underground: expansion and contraction. J. Hawkshaw, xiv. 39; J. Simpson, 39; R. Stephenson, 41.

Birmingham. Expansion of iron roof, New Street station. J. Phillips, xiv. 261; table, 262.

Cincinnati Southern railway. Expansion and contraction of Kentucky river bridge, lii. 308;—T. C. Clarke, liv. 184.

Clifton suspension bridge: expansion and contraction. W. H. Barlow, xxvi. 249.

Gravesend (Terrace pier). Expansion and contraction of cast-iron in the pier. J. B. Redman, iv. 240.

Melbourne waterworks. Expansion and contraction of tubular girder. M. B. Jackson, xviii. 373.

Menai suspension bridge: expansion of main chains. I. K. Brunel, i. (1841), 78; J. M. Rendel, 128.

Ouse. Drawbridge across the Ouse at Selby: expansion and contraction. W. B. Bray, iv. 90.

Salford. Cast-iron viaduct: expansion of cast-iron parapet prevented by fastenings. J. Hawkshaw, xi. 242, 283.

Scinde railway. Expansion and contraction of Warren girder viaducts. J. Branton, xxii. 472.

Southwark bridge: expansion and contraction of the arches with variations of temperature. G. Rennie, (T.) iii. 201, 212;—E. A. Cowper, xxii. 570.

**EXPLOSIONS:—**

Coal mines. See *Coal mines*, Explosions in.

Flouring mills at Minneapolis, Minnesota. S. F. Peckham, lv. 407.

Gas-holder explosions. Harr Schiele, xxxix. 386.

Guns. See *Artillery*.

Steam boilers. See *Steam boilers*, Explosions of.

Under water with reference to torpedoes. By Captain Moisson, l. 299.

**EXPLOSIVE AGENTS:—**

Conditions of the development of force from explosive agents, xxxiv. 365.

Experimental researches on explosive substances. MM. Roux and Sarrau, xxxix. 423.

Explosive agents—*continued*.

"Explosive agents applied to industrial purposes." F. A. Abel, xxxiv. 327; xxxv. 1.—Discussion: F. A. Abel, xxxv. 1, 32; T. Sopwith, 4; J. G. C. Curtis-Godman, 5; R. S. France, 5, 28; Major F. E. B. Beaumont, R.E., 11; P. F. Nursey, 15; C. D. Fox, 19; Major V. D. Majendie, R.E., 19; A. A. Langley, 21; T. Mason, 22; C. J. Appleby, 23; O. Webb, 23; S. P. Bidder, 25; Lieut. J. J. Curling, R.E., 28; Reeves & Co., 29; W. W. Evans, 29.

Publications relating to explosive agents, xxxiv. 370.

Storage of explosive agents, xxxiv. 356.

Blasting gelatine. P. Hess, lv. 439.

Chlorate of potash, xxxiv. 360; xxxv. 2.

Dualine, xxxiv. 345; xxxv. 30.

Dynamite, xxxv. 3.

— and nitro-glycerine. A. Brüll, xliii. 435.

— Frozen dynamite. P. Hess, xlv. 368.

— Temperature of explosion of. P. Hess, xlviii. 363.

— Tests for dynamite detonators. P. Hess, lii. 391.

— Use of, sebastine, and gun-cotton, as compared with common powder. Prof. Nordenström, xlix. 385.

— Volatility of nitro-glycerine in. P. Hess, xlviii. 364.

— (Nobel's), xxxiv. 343; xxxv. 6, 9, 17.

Fulminate of mercury, xxxix. 424.

Glyoxiline, xxxiv. 345.

Gun-cotton, xxxiv. 334, 347, 353; xxxv. 4, 6, 12, 21, 25.

Gun-felt, by Reeves and Co., xxxv. 29.

Gunpowder. "On an economical method of manufacturing charcoal for gunpowder." G. Haycroft, l. 105. (1 plate.) (For discussion, see *Charcoal*, p. 50.)

— Force of explosion. W. Bald, i. (1837), 40, 42;—Lt.-Gen. Tremenhare, i. (1838), 38.

— Explosive force. J. A. Longridge, xix. 286, 437; C. H. Brooks, 322; G. P. Bidder, 338, 450; C. B. Vignoles, 360; Capt. Boxer, R.A., 369; Maj.-Gen. Anstruther, 394; H. Conybeare, 380.

— Proposed method of testing the force by bursting shells. H. Conybeare, xix. 381.

— Method of testing the specific weight of gunpowder, by Mr. Abel. F. J. Bramwell, xxv. 138.

— its defects. F. A. Abel, xxxiv. 327; xxxv. 1. With detonating fuzes, xxxiv. 351.

— Force, heat, and temperature of explosion. MM. Roux and Sarrou, xxxix. 424;—C. W. Lancaster, xl. 121;—A. Brüll, xliii. 425.

— accelerometer, an apparatus designed for studying the phenomena of the combustion of. MM. Deprez and Sebert, xl. 355.

— accelerograph, by M. Marcel-Deprez, xl. 356.

— On a continuous register for determining the laws of the pressure produced by the explosion of. M. Rieq, xl. 357.

— On compressed charges of, xliii. 427.

— Comparative effects of, dynamite, and gun-cotton, xxxiv. 348.

— Relative values of, gun-cotton, and dynamite. R. S. France, xxxv. 6; O. Webb, 23.

**Explosive agents—continued.**

- Horsley's blasting powder, xxxiv. 845.  
 Kellow's "safety powder," xxxiv. 331; xxxv. 34.  
 Lithofracteur, Krebs', xxxiv. 346; xxxv. 10, 13, 16, 18, 23.  
 Nitro-glycerine, xxxiv. 334, 339, 353; xxxv. 3, 6, 21, 27, 28, 30; xxxix. 424; xliii. 425.  
 — Resistance of nitro-glycerine to explosion, lvii. 424.  
 — and dynamite. A. Brüll, xliii. 425.  
 — Tri-nitro-glycerine, xxxv. 31.  
 Picrates of potash, baryta, strontium, lead, xxxix. 424.  
 Picric acid, or carbazotic acid, and its compounds, xxxiv. 333, 353; xxxix. 424.  
 Pudrolythe, xxxv. 2, 11, 22. Composition, 22.  
 Pyrolithe, xxxv. 2.  
 Pyroxile, xxxix. 424.  
 Saxifragine, Capt. Wynants', xxxiv. 332.  
 Tutonite, xxxv. 25.  
 See *Artillery*—internal ballistics; *Blasting*.

**FACTORIES AND MILLS :—**

- Production of gas from waste of cloth manufactories. E. Schwamborn, xlvii. 361.  
 Weaving shed. J. Smith (Deanston), ii. (1842) 143.  
 American bridge works Sir C. A. Hartley, xl. 166.  
 Hanoverian Company's Works at Linden (Engineering). Herr Richard, xxxix. 357.  
 Lancashire. "Description of machinery for the production and transmission of motion in the large factories of East Lancashire and West Yorkshire." (S.) G. W. Sutcliffe, lviii. 227. (3 plates.)  
 Leeds. "Description of a flax-mill recently erected by Messrs. Marshall & Co." J. Combe, ii. (1842), 142.—Discussion: J. Smith (Deanston), ii. (1842), 143, 145; L. Carnegie, 144; J. Marshall, 144, 145; F. Braithwaite, 145; J. Combe, 145; J. Field, 145.  
 Niagara Falls mill, lvi. 381.  
 Turkey. Woollen factory. W. Fairbairn, ii. (1843), 125.

FAN, helical, experiments on. E. Cowper, iii. 81; E. Galloway, 84.

**FANS, centrifugal :—**

- "Conditions and the limits which govern the proportions of rotary fans." R. Briggs, xxx. 276.—Discussion: R. Briggs, xxx. 297, 306; E. A. Cowper, 297; T. Hawksley, 302, 304; F. J. Bramwell, 303; G. C. Greenwell, 304; Sir C. Fox, 305; W. C. Unwin, 305.  
 Influence of the form of the vanes and cases. E. A. Cowper, xxx. 297; T. Hawksley, 302; F. J. Bramwell, 303; Sir C. Fox, 305.  
 Power to drive Fans. W. W. Phipson, lv. 131.  
 Table showing useful effect of. E. A. Cowper, xxx. 297, 298.  
 Theory of. M. Arson, xlvii. 405. —  
 — their forms and dimensions. L. Ser, lvii. 411.  
 Ventilating fan at Lime Street tunnel, Liverpool. G. J. Morrison, xlv. 30.  
 See *Coal Mines*, Ventilation of.

FERMENT, electricity as a. M. Berthelot, lviii. 429.

## FERRIES:—

- Historical notices of tidal ferries. T. Bouch, xx. 385, 387; J. F. Bateman, 386; T. E. Harrison, 386; C. B. Vignoles, 387; G. P. Bidder, 389.
- America, ferries in, J. G. C. Curtis, xx. 388.
- Devonport, working of ferry at, C. Greaves, xx. 386; C. B. Vignoles, 387.
- "Egremont ferry landing." (S.) W. Carson (1 plate), lii. 239.
- Forth. "On the floating railways across the Forth and Tay ferries; in connection with the Edinburgh, Perth and Dundee railway." W. Hall, xx. 376. (1 plate.)—Discussion; T. Bouch, xx. 385, 387, 389; J. F. Bateman, 386; C. Greaves, 386, 389; T. E. Harrison, 386; C. B. Vignoles, 387; F. W. Shields, 388; W. Hall, 388; T. Ormiston, 388; J. Murray, 388; J. G. C. Curtis, 388; G. P. Bidder, 389.
- Isle of Wight. Steam ferry across the Medina. T. Ormiston, xx. 388.
- Mersey. "Description of the new ferry and the New Brighton piers and landing stages, on the river Mersey, near Liverpool." H. Hooper, xxviii. 217.—Discussion: see *Piers*.
- Nile. "Account of the steam ferry over the river Nile, at Kaffre Azzayat." T. Sopwith, xvii. 53. (1 plate.)—Discussion: T. Sopwith, xvii. 63; G. W. Hemans, 63; C. Greaves, 63; Sir J. Rennie, 64; Capt. Moorsom, 64; B. Stephenson, 64.
- S. Malo. Traversing bridge for crossing the harbour entrance between S. Malo and S. Servan. M. Floucaud de Fourcroy, xxxix. 394.
- Torpoint. "Particulars of the construction of the floating bridge lately established across the Hamoaze, between Torpoint in the county of Cornwall, and Devonport in Devonshire." J. M. Rendel, (T.) ii. 213.
- "On the floating bridge across the Hamoaze from Devonport to Torpoint." J. M. Rendel, i. (1838), 21.
- Zurich. Steam railway pontoon, Lake of Zurich, xliv. 286.

## FILTRATION:—

- "Experiments on the removal of organic and inorganic substances in water." E. Byrne, xxvi. 544; Supplement, xxvii. 1. (1 plate.)—Discussion: Dr. Letheby, xxvii. 6; Dr. Frankland, 8, 10, 18; J. F. Bateman, 10, 38; T. Spencer, 10, 13, 17; Prof. Wanklyn, 13; E. T. Chapman, 14; T. Hawksley, 15, 19; A. Smee, 22; Prof. Ansted, 24; H. Shield, 27; G. W. Hemans, 31; E. Chadwick, C.B., 32; E. A. Cowper, 35; C. B. Vignoles, 37; J. A. Longridge, 41; T. Webster, Q.C., 42; L. Olrick, 43; C. Heisch, 45; C. E. Austin, 46; E. Byrne, 48; C. H. Gregory, 53.
- "on the filtration of water, with some remarks on the composition of the water of the river Plate." (S.) G. Higgin, lvii. 272.
- "on the laws of filtration through sand and wool. P. Havrez, xxxix. 359.
- Filtering stone. T. Hawksley, xxvii. 16; J. F. Spencer, 17.
- Filtration of water at Buenos Ayres for separation of clayey matter. G. Higgin, lvii. 275; tables, 291 to 293.
- through chalk. E. A. Cowper, xlvii. 149.
- downwards and upwards. Dr. Frankland, xxvii. 18.
- through animal charcoal. E. Byrne, xxvi. 549, 553;—Dr. Frankland, xxvii. 8, 18; Dr. Letheby, 35.
- vegetable charcoal (wood and peat). E. Byrne, xxvi. 552;—H. Shield, xxvii. 27.
- sand and gravel. G. Higgin, lvii. 276; table, 291.



**Filtration—continued.**

- Filtration through sand and cinders. G. Higgin, lvii. 281: table, 292, 293.  
 — through sand: H. Shield, xxvii. 28, 30. Rate of transmission: J. F. Bateman, xxvii. 10. Action: T. Hawkaley, 16. Sand filtration at Leicester waterworks, 19. Sandy soil a good filter: E. Chadwick, 35. System of J. F. Bateman, 40. Filtration at Worcester, 42. Strainer used at St. Petersburg, 46. Model filters: G. Higgin, lvii. 278.  
 — through soil:—R. Rawlinson, xiv. 92;—B. Latham, xxxv. 172, 174;—Dr. Lissauer, xliii. 280.  
 Separation of salt from sea-water by filtration in wells, Ceylon. H. Byrne, lvii. 231.  
 Transmission of water through chalk and through sand. J. Prestwich, Jun. xiv. 77, 78.  
 See *Sewage filtration*; *Water supply*—Waterworks.

**FIRE-ARMS:—**

- “Application of machinery to the manufacture of rotating chambered breech fire-arms, and the peculiarities of those arms.” Col. S. Colt, xi. 30. (2 plates.)—Discussion: Col. S. Colt, xi. 51, 54, 59, 62; Hon. A. Lawrence, 52; Commodore Sir T. Hastings, 53, 54, 58; Capt. Sir E. Belcher, 54; Capt. Riddell, R.A., 55; A. B. Richards, 55, 57; Gen. Sir C. Pasley, 55; J. Freeman, 56; Mr. Adams, 56; C. Manby, 58; P. Miles, 58; C. May, 58, 63; J. M. Rendel, 59; P. R. Hodge, 61, 62; Mr. Evans, 62; J. Glynn, 63; J. Hawkshaw, 63; J. S. Russell, 63; W. B. Adams, 64; J. M. Heppel, 64; Hon. R. J. Walker, 64; Gen. MacNeill, 66.  
 Expansion of a musket-barrel when a charge is fired. J. Parkes, ii. (1843), 107.  
 Mode of placing detonating caps on the nipple of rifle. M. Néron, xiv. 189.  
 Rifled small arms: W. Conybeare, xix. 391. Table of dimensions and proportions, 392. Performance: G. P. Bidder, 457.  
 Shooting under water. Maj.-Gen. von Uchatius, i. 297.  
 McKenzie and Wentworth's breech-loading rifles, xix. 461.  
 Whitworth rifles, homogeneous-iron: J. Whitworth, xix. 398. Proofs, 398. Suitable size of bore, 400.  
 — *versus* the Enfield rifle: G. P. Bidder, xix. 400, 457; Capt. W. S. Moorsom, 400; Gen. Hay, 401;—C. B. Vignoles, xxix. 299.

**FIRE-DAMP. See Coal mines.****FIRE-PROOF BUILDINGS:—**

- “Construction of fire-proof buildings.” J. Barrett, xii. 244.—Discussion: J. Braidwood, xii. 266; Lieut. Jackson, R.N., 266; Mr. l'Anson, 267; J. Barrett, 267, 268, 269, 271; F. C. Penrose, 268; A. G. Edington, 268; J. Simpson, 269; H. A. Hunt, 270; J. M. Rendel, 271.  
 “Fire-proof buildings.” J. Braidwood, viii. 141.—Discussion: Prof. Hosking, viii. 146, 150; J. Braidwood, 147, 153, 156, 157, 160, 162; F. Whishaw, 118; G. Cottam, 148; J. Farey, 149, 161, 162; W. Piper, 151; G. Godwin, 152; T. Dines, 153, 158; C. Manby, 154; R. Stephenson, 155, 159; E. Hodgkinson, 155, 158; W. Thorold, 156; G. P. Bidder, 157, 159; J. F. Bateman, 159, 161; C. May, 159; J. Field, 160; J. M. Rendel, 160; Gen. Pasley, 162; J. Barrett, 162.

**Fire-proof buildings—continued.**

Fire-proof buildings. "Some defects in the principle and construction of." W. Fairbairn, vi. 213. (1 plate.)—Discussion: J. Farey, vi. 217; R. Stephenson, 219, 223; G. P. Bidder, 220, 222; C. B. Vignoles, 220, 223; W. Handyside, 221, 223; G. Rennie, 222; B. Albano, 222; Gen. Sir C. Pasley, 222; Sir J. Rennie, 224.

Fireproof flooring. J. Barrett, viii. 162. Strength of joists: J. Barrett, xii. 251. Comparative weights of floors, xii. 268.

**FIREPROOF SAFES.** J. Braidwood, viii. 147; J. Chubb, 154; ix. 329.

**FIRES, fire-engines, &c. :—**

Dimensions and power of manual engines. J. Braidwood, iii. 311, 319, 320, 321.

Extinction of fires by choke-damp. G. Gurney, x. 53.

Feed-pumps employed as fire-engines. G. W. Sutcliffe, lvii. 233.

Fire-plugs. J. Braidwood, iii. 314.

Fire-cocks. J. Braidwood, iii. 316. Nozzles, 321.

Fires in London, 1833-43, table. J. Braidwood, iii.; 330.

"Means of rendering large supplies of water available in cases of fire, and on the application of manual power to the working of fire-engines." J. Braidwood, iii. 309.—Discussion: J. Simpson, iii. 322; J. Braidwood, 328.

Protection of inflammable materials against fire, xliii. 424.

Table of fires at Liverpool. T. Duncan, xii. 479.

**FIRTHS AND FRITHS.** See *Sea*.

**FISHING AND LIFE-BOATS.** J. Coode, xii. 545;—A. Henderson, xiii. 26.

**FLAMES,** on the influence of pressure on. Prof. Dr. v. Wartha, xlviii. 329.

**FLAX-MILL** erected by Messrs. Marshall and Co. at Leeds. J. Combe. ii. (1842) 142.

**FLOODS :—**

"Causes of floods." R. Rawlinson, C.B., xlv. 63; Rev. J. C. Clutterbuck, 64.

Flood water in rivers, measured by under-drainage. G. W. Hemans, xxi. 99, 117.

Flood water of rivers. J. F. Bateman, xxii. 362.

Flood regulators. Prof. Ansted, xxvii. 230; W. Parkes, 243; R. W. Graham, 247.

Formulas for flood-discharge of rivers. Lt.-Col. P. P. L. O'Connell, R.E., xxvii. 206, 210; G. H. Phipps, 239; G. P. Bidder, 248; J. F. Bateman, 253; J. M. Heppel, 260.

"Relation of the freshwater floods of rivers to the areas and physical features of their basins; and on a method of classifying rivers and streams, with reference to the magnitude of their floods, proposed as a means of facilitating the investigation of the laws of drainage." Lieut.-Col. P. P. L. O'Connell, R.E., xxvii. 204. (2 plates.)

Self-acting flood-gates. Corbet Lough (Bann), reservoir. J. F. Bateman, vii. 273.

Storage of flood water. C. W. Merrifield, xlv. 68; W. Shelford, 61; W. Topley, 90; E. J. Lloyd, 97.

**Floods—continued.**

“Variable motion of fluids applied to the floods of rivers.” M. Kleitz, li. 356.

England. “On the floods in England and Wales during 1875, and on water economy.” G. J. Symons, xlv. 1. (1 plate.)—Discussion: *vide* Paper by C. Greaves, on “Evaporation and Percolation” (*Rainfall—Evaporation.*)

France, floods in. Prince Louis Napoleon, xxvii. 270.

India. River floods, Bengal Presidency. Maj.-Gen. G. B. Tremenhoe, R.E., xvii. 503; C. Greaves, 52; G. Sibley, 525.

—“Floods in the Nerbudda valley, with remarks on monsoon floods in India generally.” A. C. Howden, xxvii. 218. (2 plates.)—Discussion on the two preceding Papers: Rev. J. C. Clutterbuck, xxvii. 229; Prof. D. T. Ansted, 230; Capt. E. R. James, R.E., 233; N. Beardmore, 235; J. G. C. Curtis, 238; G. H. Phipps, 239; Col. J. T. Smith, 240; R. P. Brereton, 241; W. Parkes, 243; R. W. Graham, 246; G. P. Bidder, 248; J. F. Bateman, 253; Sir W. Denison, 254; J. Brunton, 256; H. Law, 257; Col. J. P. Kennedy, 257; G. J. Symons, 258; J. M. Heppel, 259; R. Manning, 261; F. Fowler, 262; A. A. West, 264; A. H. Vaux, 265; J. B. Redman, 270.

Staffordshire. Floods in South Staffordshire. A. Payne, xlv. 89.

Yorkshire. Flood-drainage in Yorkshire, &c. J. F. Bateman, xx. 229.

See *Reservoirs*, *Storage*; *Rivers*.

**FLUIDS** (Elastic), discharge of, under pressure. See *Air*.

**FLUVIOGRAPH** for registering the levels of a river, liv. 297; lvii. 351.

**FOG SIGNALS (Sea):—**

Bells as fog-signals. A. Beazeley, xxxii. 101.

Fog-bell at Wolf rock. J. N. Douglass, xxx. 9, 19.

Fog horns at sea: Capt. Owen, xxviii. 43. Daboll's compressed-air fog horn at St. Catherine's lighthouse, xxx. 20, 24, 27. The Daboll horn. A. Beazeley, xxxii. 114, 122.

Fog signals. J. N. Douglass, lvii. 103.

Gongs as fog signals. A. Beazeley, xxxii. 100, 104.

Holmes's compressed-air fog-horn. J. N. Douglass, lvii. 84, 86.

“Phonic Coast Fog-Signals.” A. Beazeley, xxxii. 95.—Discussion: A. Beazeley, xxxii. 122, 127, 128; Dr. J. H. Gladstone, 122; E. A. Cowper, 124, 127; J. N. Douglass, 126, 127; C. B. Vignoles, 126, 127, 128; W. H. Delano, 128.

Siren's compressed-air trumpet, Souter Point lighthouse. J. N. Douglass, lvii. 86. Lizard lighthouse, 92, 95. Minimum range, lvii. 103.

Steam trumpet as a signal. Prof. Holmes, xxx. 27; xxxii. 118, 126, 127.

Whistles. A. Beazeley, xxxii. 106. Steam-whistle: E. A. Cowper, 124, 128.

**FORESTS**, influence of, on rainfall. Sir W. Davison, xxvii. 255.

**FORMULÆ**. On the use of formulæ. Maj.-Gen. Sir C. Pasley, R.E., ix. 268; —G. P. Bidder, xxvii. 248; J. F. Bateman, 253; —T. Hawksley, xxxiii. 343; —General Sir H. Lefroy, lvi. 204, 205; Dr. O. W. Siemens, 207; Commander W. Dawson, R.N., 217; G. A. Canet, 226; J. A. Longridge, 244; R. Wilson, 258.

## FORTIFICATIONS :—

Foundations of marine fortifications, in concrete. D. Miller, xxii. 436.

Resistance of a combination of iron and stone. Col. Jervia, xx. 425.

## FOUNDATIONS—General References :—

Caissons for foundations of bridges. D. A. Wittop Koning, xlviii. 299 ;—

H. Funk, xlix. 300 ;—J. Gaudard, l. 119, 125.

Chimney, foundation for a. E. A. Cowper, xli. 120.

Employment of consolidated sand for foundations. M. Lavezzari, l. 198.

Foundation on silt or running sand : J. Gaudard, l. 142. Viaduct, Lisbon and Santarem railway : J. S. Valentine, xviii. 14. Albert dock, Hull :

lock foundations : J. C. Hawkshaw, xvi. 98. Drainage works, South London : J. Grant, xli. 118.

Foundations in bad ground : clay. J. Simpson, iv. 249.

"Foundations, natural and artificial." S. Clegg, Jun., x. 317.

"Foundations." (S.) J. Gaudard, l. 112. (1 plate.)

Foundations of large bridges. H. Funk, xlix. 299.

Frames of screw-piles for piers of bridges. J. M. Heppel, xxiv. 192.

"Springs." Treatment of springs or "boils" in engineering works : in excavations for dockwork. Albert dock, Hull, Avonmouth dock, &c.—J. C. Hawkshaw, xli. 98 to 109, 122 ; Sir W. Wright, 114 ; Sir J. Hawkshaw, 114, 122 ; A. Giles, 116 ; J. B. Redman, 117 ; J. Grant, 118 ; S. C. Homersham, 119 ; T. J. Pearsall, 121 ; T. E. Harrison, 123 ;—J. Gaudard, l. 118.—J. B. Mackenzie, lv. 10, 114 ; C. Graham Smith, 65 ; H. Hayter, 70 ; W. J. Doherty, 98 ; W. Stanley, 108.

"Submarine foundations ; particularly the screw-pile and moorings." A. Mitchell, vii. 108. (4 plates.)—Discussion : see *Piles*, Screw.

Berck. Foundations of the hospital at. M. Lavezzari, l. 197.

Deptford. Piled foundation, Deptford dockyard : Sir J. Rennie, vi. 158.

"Dordrecht railway bridge, and the foundations of the railway bridge at Rotterdam." (S.) Sir J. G. N. Alleyne, xlii. 213.

Eau Brink. Foundation of viaduct at Eau Brink cut. W. Eckersley, xxvii. 317.

Elbe. Foundation of Queen Carola bridge over the Elbe, near Schandau, lv. 350.

France. Foundations in sand on the coast of the Department du Nord. M. Ploeg, lv. 337.

Hownes Gill. A pier of Hownes Gill viaduct suspended. T. Bouch, xxii. 54.

Huelva pier. Platform foundations on sand soil. T. Gibson, liii. 136 ; G. B. Bruce, 159 ; J. Dixon, 162 ; J. Robinson, 162.

Leyden. Piled foundation. Leyden station, Amsterdam-Rotterdam Railway : Chev. F. W. Conrad, iii. 179, 180.

Lowestoft. Floating platform foundations for piers of bridge, Haddisco cut, Lowestoft. G. Edwards, vi. 157.

Paris. Foundation of New Opera House. M. Baude, xliii. 331.

Reedham. Cast-iron foundation for pier of swing-bridge, Reedham, Norfolk railway. G. P. Bidder, vi. 157.

Ruhr at Düsseldorf, foundations of a bridge over the. Hr. Wiebe, lii. 304.

Sheerness dockyard, wall of. Sir J. Rennie, vi. 159.

Solway viaduct, cast-iron piles for. W. Eckersley, xxvii. 318.

Westminster bridge, piers of. G. W. Hemans, xxiii. 31.

## FOUNDATIONS OF CONCRETE:—

Concrete foundations under water: J. Hawkshaw, xxiv. 170; A. Giles, 176; J. B. Redman, 180; J. Grant, 182. Employment of concrete foundations for marine fortifications: D. Miller, xxii. 436. Foundation for a beacon near Marseilles: W. Parkes, 169. Docks at Genoa: J. Hawkshaw, 170. Pier of a bridge: C. B. Vignoles, 170. Mole at Callao: C. Reilly, xxii. 170.;—G. W. Hemans, xxv. 112; J. Abernethy, 113; E. R. N. Druce, 114; W. R. Kinipple, 126; J. Aird, Jun. 128; Sir C. Fox, 128; J. Jennings, 130; J. B. Redman, 142; R. P. Brereton, 143; J. Cooode, 146; J. Hawkshaw, 146; Sir C. A. Hartley, 150.

— of dry docks at Ellerbeck, near Kiel. H. Reichtern, xli. 259.

— of large bridges. H. Funk, xlix. 299.

Concrete in foundations under water. J. Gaudard, l. 117.

Foundation of large rectangular blocks of concrete formerly laid for bridges in India. G. Turnbull, liv. 112.

“Structures in the sea [concrete] without cofferdams; with a description of the works of the new Albert Harbour at Greenock.” D. Miller, xxii. 417.

— Discussion: see *Harbours*, Greenock (p. 113).

— See *Concrete*, its derivatives.

## FOUNDATIONS, CYLINDER, OR WELLS, OF BRICK:—

Brick cylinders, Ravi bridge, Punjab Northern State railway. R. T. Mallet, liv. 61, 63, 66, 67.

— Jhelum bridge, Punjab Northern State railway. F. M. Avern, liv. 95.

— system for quay walls. J. F. Bateman, xxxiv. 28.

— constructed for the Thames tunnel. C. B. Lane, xxxv. 206; J. B. Redman, 208; J. Milroy, 210.

— foundations or wells in the north-west provinces of India. Col. Sir F. Abbott, xvi. 457;—J. M. Heppel, xxiv. 191;—C. B. Vignoles, xxxi. 31;—Major J. Browne, R.E., xxxiv. 34, 35;—J. Gaudard, l. 115.

Brick wells in India. J. M. Heppel, xxiv. 191; C. B. Vignoles, xxxi. 31.

— for bridge over the Clyde, Glasgow Union railway: J. D. Baldry, xxviii. 356;—J. Milroy, xxxv. 193. Muddy soil, 195.

Cylinder wells for the Alexandra bridge, Punjab Northern State railway. H. Lambert, liv. 78, 84.

Cylinders of Ransome's artificial stone, for Hermitage wharf. J. Milroy, xxxv. 197, 211; A. M. Rendel, 207; F. Ransome, 209.

“Cylindrical or columnar foundations in concrete, brickwork, and stonework.” J. Milroy, xxxv. 186. (1 plate.)—Discussion: J. F. Bateman, xxxv. 201; C. B. Lane, 206; W. Crouch, 206; A. M. Rendel, 207; J. B. Redman, 207; F. Ransome, 209; I. Bell, 209; J. Milroy, 210.

“Description of the method of building bridges upon brick wells in sandy foundations; illustrated by the viaduct over the River Poiney on the line of the Madras railway.” G. B. Bruce, xvi. 449.—Discussion: R. Stephenson, xvi. 455; C. Manby, 455; G. B. Bruce, 456; J. Hawkshaw, 457; Col. Sir F. Abbott, 457.

“Mode practised in India for obtaining solid foundations for bridges, &c., in sandy soils by means of wells.” Col. Goodwyn, ii. (1842), 63; xvi. 455.—Discussion: Col. H. Goodwyn, R.E., ii. (1842), 64; Lieut. T. H. Sale, R.E., 64; J. Parkes, 64; J. Simpson, 64; R. Davison, 65; J. Walker, 65.

Foundations, cylinder, or wells, of brick—*continued*.

Sinking wells. "The implements employed and the stone protection adopted in the reconstruction of the bridges on the Delhi railway." (S.) C. Stone, xxxix. 212. (2 plates.)

"— for the foundations of the bridge over the river Jumna, Delhi railway."

I. Bell, xxviii. 325. (1 plate.)—Discussion: See Paper on "Excavating under Water," by J. Milroy. (*Excavating machinery*, p. 88.)

Well foundations for large bridges. H. Funk, xlix. 300.

#### FOUNDATIONS, CYLINDER, OF IRON:—

Historical notice. J. Hawkshaw, xxi. 183;—F. J. Bramwell, xxviii. 355; J. B. Redman, 356; xxxiv. 24.

Cast-iron cylinder foundations for the lighthouse, Point of Air. J. Walker, ii. (1842), 65.

Cylinder foundations for large bridges. H. Funk, xlix. 299.

Four methods of sinking iron cylinders. G. W. Hemans, xxi. 265.

Increasing the area at the bottom of cylinders. Sir C. Fox, xxvii. 302.

Iron cylinder system. J. Hawkshaw, xxi. 183;—J. B. Redman, xxxiv. 24, 31.—J. Gaudard, l. 128.

Iron cylinders with helical flanges, by I. K. Brunel, vii. 137.

Metallic *versus* non-metallic cylinder foundations, J. Milroy, xxxv. 199.

Sinking cast-iron cylinders by means of cylindrical cofferdams: Terrace pier, Gravesend. J. B. Redman, iv. 231; xxxiv. 26.

Sinking cylinders from pontoons: Gorai bridge. B. Leslie, xxxiv. 4.

See *Excavating machinery*; *Piles and Pile-driving*: *Piles*, Screw.

#### FOUNDATIONS, CYLINDER, SINKING, BY MEANS OF COMPRESSED AIR:—

Compressed-air process. J. Gaudard, l. 132, 140. Cost of foundations constructed on this system, 140.

Sinking cylinders with compressed air. F. J. Bramwell, xxviii. 355.

Anderton, cast-iron cylinders for the canal lift at, on the river Weaver, sunk with compressed air. J. W. Sandeman, xlv. 121.

Nile, M. Mougél's compressed-air system of excavation at the barrages of the. R. Stephenson, x. 368.

— Cylindrical piers sunk by compressed-air process, Nile ferry, Kaffre Azzayat. R. Stephenson, xvii. 64.

Philadelphia. Use of compressed air in tubular foundations, and its application at South Street bridge, Philadelphia. D. McN. Stauffer, lvii. 323.

Prague-Smichow bridge, pneumatic caisson foundations of the. J. V. Reiter, li. 288.

— Description of the method employed for sinking the caissons of the new. J. V. Reiter, liii. 311.

St. Louis, sinking pier for a bridge across the Mississippi, at, with compressed air. F. Fox, xxxiv. 80.

Saulze Bridge. Sinking the foundations of the Saulze bridge with compressed-air. P. Bonhomme, xlv. 244.

#### FOUNDATIONS, CYLINDER, SINKING, BY FORCED CURRENTS OF WATER:—

Hydraulic digging. F. J. Bramwell, xxviii. 353, 354.

Pier at Southport, Lancashire. H. Hooper, xx. 294.

Pile-sinking by the water jet. B. Wieck, lvi. 335.

— of a fire-engine. H. Bucking, liii. 339.

**F**oundations, cylinder, sinking, by forced currents of water—*continued*.

Pile-driving by the injection of water. MM. Stoecklin and Vétillart, liii. 312.

Sinking hollow piles, South Reserve piers, Birkenhead. C. Graham Smith, l. 167.

— in quicksand: viaducts in Morecambe Bay, Ulverstone and Lancaster railway. J. Brunlees, xvii. 444.

See *Boring*, &c.

**FOUNDATIONS, CYLINDER, SINKING, BY THE VACUUM PROCESS:—**

Glasgow bridge substructure (river Missouri). C. SooySmith, lvii. 328.

"Pneumatic method adopted in constructing the foundations of the new bridge across the Medway at Rochester." J. Hughes, x. 353. (1 plate).—Discussion: C. Fox, x. 366; J. M. Rendel, 366, 367, 369; J. Walker, 366, 367; W. Cubitt, 367; J. Hughes, 367, 369; J. Wright, 367; Capt. Moorsom, 367; R. Stephenson, 368.

Potts's pneumatic cylinders, first application of, Chester and Holyhead railway. S. Clegg, Jun., x. 319.

Results of experiments on the expenditure and loss of air in pneumatic foundations. A. S. von Eisenwerth, lii. 302.

Sinking cylinders by pneumatic process: Centre pier of Saltash bridge. R. P. Brereton, xxi. 270, 275; J. Cochrane, 275; F. Lawrence, 275; J. Hawkshaw, 276.

Sinking iron cylinders by Dr. Potts's vacuum process. G. W. Hemans, xxi. 265; xxvii. 296;—Sir C. Fox, xxvii. 301; R. P. Brereton, 303; J. B. Redman, 304.—E. A. Cowper, xxviii. 348; F. J. Bramwell, 353.—J. Gaudard, l. 131.

"Supporting power of piles; and on the pneumatic process of sinking iron columns as practised in America." W. J. McAlpine, xxvii. 275.

**FOUNDATIONS—SUPPORTING POWER, LOAD, FRICTIONAL RESISTANCE OF SOIL:—**

Bearing power of quicksands. J. Brunlees, xvii. 442.

— on mud or slake, at South Shields. T. E. Harrison, xviii. 493.

Friction of brick wells in clay. Major J. Browne, R.E., xxxiv. 35.

— of cylinders through the soil. J. Gaudard, l. 131.

Frictional resistances of pneumatic foundations. A. Schmoll, lii. 298.

— of a caisson in sand and gravel. J. Reiter, li. 290.

Load supported by clay; experimental results. W. J. McAlpine, lvii. 202.

— safe, on various soils. J. Gaudard, l. 112, 116.

Mud, supporting power of, for Huelva pier, Rio Tinto. T. Gibson, liii. 135, 137; tables, 144 to 158.

Testing the capability of soils for sustaining weights by the proportion of water contained in them. J. M. Rendel, ix. 17.

Albany. "Foundations of the new Capitol at Albany, New York." (S.) W. J. McAlpine, lvii. 198.

Barentin viaduct. Foundations. G. R. Burnell, vi. 438; C. B. Vignoles, 438.

Bristol waterworks. Foundations of aqueducts. J. Simpson, xiv. 220, 222.

Charing Cross bridge. Frictional resistance of bed to descent of cylindrical piers. H. Hayter, xxii. 514.

— Load on piers of. H. Hayter, xxii. 516; F. W. Sheilds, 533.

Clifton Suspension bridge. Limiting load on brickwork. W. H. Barlow, xxvi. 248.

Exhibition, 1851, foundations of building of. C. H. Wild, x. 173.

Foundations—supporting power, load, frictional resistance of soil—*continued*.

Hownes Gill viaduct, piers of. W. Cudworth, xxii. 46.

Lock Ken viaduct, load supported on piers of. E. L. I. Blyth, xxi. 260.

Maplin Sand lighthouse. Foundations: screw-piles of. J. B. Redman, vii. 152.

Mauritius railway. Load supported by piers: Grand River viaduct. G. H. Phipps, xxv. 251.

Paris, Load supported by foundation of reservoir for water supply of, G. R. Burnell, xxv. 487.

Philadelphia. Foundation of South street bridge. D. McN. Stauffer, lvii. 323.

Saltash bridge, centre pier of. R. P. Brereton, xxi. 270.

Victoria bridge. Foundations: over the river Wear, Durham Junction railway. D. Bremner, ii. (1843), 97.

**FREEZING.** See *Cold* and *Refrigeration*.

#### **FRICTION AND FRICTIONAL RESISTANCE:—**

Action of friction rollers in reducing friction. P. A. de Brussaut, xviii. 407; J. James, 414; F. Lawrence, 415.

Angle of repose of arch-stones of Waterloo and London bridges. G. Rennie, iii. 108.

Brandreth's friction-wheels in railway carriages. J. Locke, xviii. 416.

Experiments on frictional resistance. G. Rennie, ii. (1843), 79; xxvi. 355; —E. A. Cowper, xxvi. 376.

Friction of rough surfaces, coefficients of, on gravel and sand. A. Schmoll, lii. 299.

— of soils. W. Airy, lv. 241.

— of solids: Historical notice of experimental results. W. Pole, ii. (1843), 74; Maj.-Gen. Pasley, 78.

Frictional resistance of large surfaces of cast-iron on cast-iron, by Messrs. Eastons and Anderson. F. G. M. Stoney, lvii. 58.

— of roller-bearings. F. G. M. Stoney, lvii. 58.

— a slip at Palermo. W. Theis, xlvi. 299.

Laws of friction. A. S. Kimball, i. 191.

Loaded carriage traverser, Cöln-Minden railway: frictional resistance. P. Leonhardi, xlvi. 293.

Roller pivots for swing bridges, in America. Frictional resistance. Z. Colburn, xxii. 552.

Shafting: frictional resistance. H. Robinson, xlix. 22; B. Walker, 47.

Steam engines, shafting, and brewery machinery: Frictional resistance. R. Davison, ii. (1843), 79.

#### **FUELS:—**

“Combustion of refuse vegetable substances, such as straw, reeds, cotton-stalks, brushwood, megass, &c., under steam boilers.” J. Head, xlvi. 75. (3 plates.)—Discussion: J. Head, xlvi. 92, 101; F. J. Bramwell, 92; F. Garrett, 93; J. A. Longridge, 96; W. Anderson, 97; Dr. C. W. Siemens, 99; E. A. Cowper, 100; R. C. Ransome, 102; G. R. Stephenson, 102.

Comparative efficiency of coal, peat, straw, &c. J. Head, xlvi. 77, 78, 87, 99. Chemical analysis of the fuels, 78, 90.



**Fuels—continued.**

Composition and heating power of petroleum oils, solid fuels, alcohol, and gases. O. C. D. Ross, xl. 161.

Economy of fuel by smoke prevention. T. Hawkaley, xi. 405.—A. Fraser, xiii. 406; G. Muir, 408.—W. Woodcock, xiv. 7, 14, 23; W. B. Jenkins, 15, 16; J. B. Burney, 19; G. F. Wilson, 23; J. Lee Stevens, 25; T. Hawkaley, xix. 570; J. A. Longridge, 578; D. K. Clark, 583.

Evaporative efficiency of creosote oil. Capt. J. Selwyn, R.N., xxix. 194.

— performance of spent tan. Prof. R. H. Thurston, xlii. 336.

— (Relative) of coal, wood, and peat. W. Anderson, xli. 205.

Fuel and its use. (Heating powers and efficiencies of various fuels:—petroleum, coals, peat, wood, straw, gas.) Prof. H. Fritz, xliii. 399.

Heating power: peat *versus* charcoal. A. Enigl, lvi. 350.

“Theoretical calculation of the fuel saved by working steam expansively.” J. W. Lubbock, i. (1840) 3.

Briquettes, manufacture of, at the Graissessac coal mines. M. Savy, xlvi. 342.

— of lignite by dry compression. A. Wilcke, xlvi. 343.

— (patent fuel) in the Aachen district. Hr. Hilt, liii. 398.

— Utilising waste cinders lodged in smoke-boxes of locomotives. A. Gambaro, lvii. 404.

Lignite, production of compressed fuel from earthy, in Prussia. R. A. Schultz, xlviii. 349.

“Liquid fuels.” H. Aydon, (1 plate) lii. 177.—Discussion:—L. Olrick, lii. 197; Admiral Selwyn, 199; Dr. Paul, 202; E. F. Bamber, 204; T. R. Crampton, 204; J. A. Longridge, 205; G. F. Deacon, 206; J. Phillips, 206; H. Aydon, 206, 213; S. B. Boulton, 210; O. C. D. Ross, 211.

Pulverised fuel, use of. B. F. Isherwood, xlv. 289.

Resin fuel. O. W. Williams, i. (1839), 34, 38.

Straw coke, by Mr. Pryor, i. (1839), 67.

Wood, on American railways. Z. Colburn, xxviii. 373.

Wood charcoal. G. Lowe, i. (1839), 31. Absorption of the carbonic acid of combustion, i. (1838), 15.

Zinc. Joule’s experiments on the absolute force produced by the oxidation of zinc in a battery. R. Hunt, xvi. 398, 419; Prof. W. Thomson, 400; Dr. Joule, 415.

See *Blast furnaces*, fuel for; *Coal*, composition, &c.; *Coke*, combustion, &c.; *Locomotives*; *Peat-fuel*.

**FUMIFIC IMPELLER**, by A. Gordon, ix. 202.

**FURNACES:—**

Copper-smelting furnace. J. L. Morgan, xxvi. 44; C. W. Siemens, 47.

Cupola furnaces. A. Ledebur, liv. 363.

Danks furnace at the Millvale works, Pittsburg, Pa. J. I. Williams, li. 327.

Gases (furnace), composition and industrial use of. M. Cailletet, lii. 364.

— Industrial use of. L. Cailletet, lvii. 393.

Glass-melting furnaces: comparative efficiency of coke and coal. A. Pellatt, i. (1838), 39; i. (1839), 42. Welding glass: A. Pellatt, i. (1839), 31.

— On the different systems of ovens employed in the manufacture of window glass. O. Tock, xlvi. 334.

— ovens. M. Greley, xlix. 381.



**Furnaces—continued.**

Gunpowder. Furnaces for the manufacture of gunpowder charcoal at Faversham : G. Haycraft, l. 105, 106, 111 ; Major Wardell, 109 ; S. Sharp, 110. Utilisation of waste heat at Faversham : G. Haycraft, l. 105, 110 ; Major Wardell, 108 ; S. Sharp, 110.

— Gunpowder-charcoal furnaces at Waltham Abbey : G. Haycraft, l. 105, 110 ; Major Wardell, 108.

Heat. Utilisation of the waste, of open-hearth fineries. J. Asterberg, lvi. 359.

— utilisation of, in furnaces (comparative efficiency of blast furnaces, Hoffman furnaces, Siemens furnaces, reverberatory furnaces, &c.). L. Grüner, xlv. 310.

Iron heating furnaces: Use of powdered coal as fuel. T. R. Crampton, lii. 205 ; E. H. Aydon, 209.

Mercury ores, new furnace for. A. Pichler, li. 329.

Pernot's revolving puddling furnace :—On the manufacture of iron, puddled steel, and cast steel in it. A. Henry, xl. 331. Results of the working of Pernot's furnace at Ougrée, xliii. 402.

Perrett's furnace for burning pulverulent fuels, liv. 367.

Petroleum fuel in iron furnaces. H. Aydon, lii. 190 ; Dr. Paul, 203.

— Eames's system of petroleum furnace. Prof. H. Wurtz, xlii. 336.

Roasting furnace (new circular). W. M. Brodie, lviii. 406.

Sawdust, furnace for the combustion of. E. A. Cowper, xlviii. 100.

Steel, furnaces for melting, in crucibles, xlii. 10.

Straw, furnace for the combustion of, in portable engines. J. Head, xlviii. 79, 80, 81, 86 ; F. Garrett, 93.

Sugar-cane. Furnace for the combustion of "megass," or sugar-cane refuse, in stationary boilers. J. A. Longridge, xlviii. 97 ; W. Anderson, 97.

Tan (spent). Efficiency of furnaces burning wet fuel. Prof. R. H. Thurston, xl. 347.

Zinc. Furnace for the distillation of zinc combined with lead (zinkbleiöfen) at Tarnowitz, Upper Silesia. Dr. Wedding, xl. 340.

Zinc furnaces in Upper Silesia. Max Georgi, xlix. 369.

See *Blast furnaces* ; *Copper-ores* ; *Iron*, wrought, manufacture of ; *Steel*, manufacture of.

**FURNACES, GAS :—**

Belgium. New gas-furnace at Couillet rolling mills. M. Tahon, liii. 385.

Combustion and the construction of furnaces for industrial purposes. M. A. Fichet, xl. 344.

Experiments on the performances of coke furnaces, under various conditions of draught, made by a commission appointed by the Verein von Gas-und-Wasserfachmännern Deutschlands :—(quantity, composition, and temperature of gases produced), lv. 422.

Hoffman's annular furnace : its efficiency. L. Grüner, xlv. 310, 311.

Improvements in gas furnaces, xl. 302.

Ponsard's recuperative furnace. S. Périsse, xl. 330.

Regenerative furnaces for glass works, &c. T. Kleinwachter, xlv. 318.

Siemens gas furnace. G. Boistel, xli. 301.

— On the causes of the obstruction of the regenerator-passages in, L. Borbély, xlv. 331.



**Furnaces, gas—continued.**

Siemens's furnace—on steel-melting furnaces at Ischeff's small-arms factory in Russia. G. Archer, i. 269.

— regenerative furnace, for melting steel, xlii. 11, 21.

— Siemens-Martin furnace for melting scrap steel. C. W. Siemens, xxv. 379.

— Siemens-Martin regenerative steel-melting furnaces, Domnarfvet Iron-works. C. Wittenstrom, lvii. 389.

— On the working of regenerative puddling furnaces. D. Borbély, liv. 367.

Temperature of gas furnaces. S. Périsse, xlv. 312.

FUZES. Time fuze. Sir W. G. Armstrong, xix. 410; concussion fuze, 411; time fuze, J. Whitworth, 424; pillar fuze, Sir W. G. Armstrong, xx. 474.

GALVANISED IRON. See *Iron*, wrought, preservation of.

GALVANOMETERS. See *Electricity* (voltaic).

**GAS, coal—General references :—**

Analysis of coal gas, by A. Vernon-Harcourt, xl. 151.

Detector of variation in the pressure of gas. T. du Moncel, xl. 354.

Processes, new, in proximate gas analysis. Prof. H. Wurtz, xli. 304.

“Purification of coal gas, and the application of the products thereby obtained to agricultural and other purposes.” A. A. Croll, iii. 290.—Discussion : G. Lowe, iii. 301, 304; Prof. Graham, 302; J. Bethell, 303; J. Simpson, 303; A. Murray, 304; J. Farey, 305; J. T. Cooper, 307; J. Walker, 308.

Recent investigations on the composition of coal gas and hydrocarbons, M. Berthelot, xlv. 369.

Use of gas in cooking. C. Wolff, xlii. 373.

**GAS, LEAKAGE OF :—**

Leakage of gas from iron pipes. J. Simpson, iii. 303; G. Lowe, 304; J. Farey, 307; J. Walker, 308;—A. A. Croll, iv. 212; G. Lowe, 220;—H. E. Jones, xl. 19; H. Jones, 33.

— retorts, law of. A. Wright, xvi. 317; T. Hawksley, 324; J. Church, 325.

— joints of pipes, law of. F. J. Evans, xvi. 319; H. Gore, 319; C. W. Siemens, 320.

**GAS, COAL, MANUFACTURE OF :—**

Historical notice of gas manufacture. Sir J. Rennie, v. 62.

Deposit of carbon in retorts : J. Church, xvi. 312. Extraction of it, 313; E. Goddard, 321; Mr. Fraser, 321; Dr. Maugham, 322.

Fuel for gas retorts. Tar : W. Strode, xvi. 320. Coke : Mr. Fraser, 321.

Gas condensation (in vertical tubes). E. Grahn, xliii. 430.

— manufactured in coke ovens. M. Pernolet, xxiii. 444.

Graphite from gas retorts. J. Parke, i. (1839), 69; G. Lowe, 69.

Iron retorts *versus* clay retorts. J. Church, xvi. 310, 325; H. Gore, 315; A. Wright, 316; F. J. Evans, 318; W. Strode, 320; E. Goddard, 321; Mr. Fraser, 321; T. Hawksley, 323.

Manufacture of gas by the waste heat from coke ovens, Ipswich gasworks. W. Cubitt, (T.) i. 109.

Mechanical separation of matter in suspension in gas or vapours. F. Le Blanc, xlviii. 331.

Gas, coal, manufacture of—*continued*.

Purification of coal gas by oxide of iron. A. Mallet, xliii. 429.

"Results of the use of clay retorts for gas making." J. Church, xvi. 309.—

Discussion: H. Gore, xvi. 315, 319; A. Wright, 316; F. J. Evans, 318; C. May, 319, 322; C. W. Siemens, 320; W. Strobe, 320; E. Goddard, 321; Mr. Fraser, 321, 322; Dr. Maugham, 322; J. F. Fairbank, 322; T. Hawksley, 323; J. Church, 325; G. H. Ramsay, 326.

Steam-stoker. Hodgson Jones, xl. 30.

Temperature for the manufacture of gas: H. E. Jones, xl. 6, 54; Dr. Letheby, 21; H. Jones, 30; R. H. Patterson, 42; A. F. Wilson, 52; R. Jones, 53.

Most favourable conditions: H. E. Jones, xl. 2; Dr. Letheby, 21; S. Hunter, 24.

## Gas, MANUFACTURE OF—PETROLEUM, &amp;c. :—

"Application of certain liquid hydrocarbons to artificial illumination; with a description of a new method of gas-lighting." C. B. Mansfield, viii. 207.

—Discussion: G. Lowe, viii. 228, 229, 230; C. B. Mansfield, 229, 230; Mr. Rettie, 231; W. Harding, 231; Dr. Hofmann, 231; F. Whishaw, 232; R. Stephenson, 232; A. Pellatt, 232.

Distillation of petroleum gas on the Scheuer system, lv. 424.

Gas from petroleum oils at low temperature, lviii. 433.

Manufacture of gas from paraffin oils. L. Grotowsky, li. 388.

Naphthalisation of gas. C. B. Mansfield, viii. 211, 230; G. Lowe, 228, 229; W. Harding, 231; Dr. Hofmann, 231.

Oxy-carbon gas. M. de Soulages, liii. 400.

Petroleum, gas from. O. C. D. Ross, xl. 46. Illuminating power, 153.

"Petroleum and other mineral oils applied to the manufacture of gas." (S.)

O. C. D. Ross, xl. 150.

— and naphthaline *versus* Cannel coal. Prof. A. Wagner, xli. 306.

— and anthracite gas: the Lowe process, xlii. 374.

Production of gas from waste of cloth manufactories. E. Schwaborn, xlvii. 861.

Gas, marsh, and olefant gas: composition and heating power. O. C. D. Ross, xl. 161.

GAS-BURNERS. "Description of a mode of obtaining the perfect ventilation of gas-burners." Faraday, ii. (1848) 184.

Johnson's universal gas-burner, v. 433;—Dr. Ure, vii. 100. Triple-jet burner: Dr. Buckland, vii. 85;—C. B. Mansfield, viii. 223;—H. Jones, xl. 83.

Standard burner, xlv. 152, 155. Sugg-Letheby burner, 153. Sugg's London standard burner, 154, 161, 166, 168. Gas referees' (London) burners, 156. Dublin flat-flame burners, 156.

## GAS-ENGINES :—

Carbonic acid gas engine by Sir I. Brunel. I. K. Brunel, ix. 199, 200; A. Gordon, 200, 201, 202; R. Stephenson, 200.

Cost of gas as a motor power, lvi. 380.

Otto's gas engine. M. Armengaud, jun., liii. 366.

— Horizontal Otto-Langen gas engine. H. Wacker, lii. 387.

Performance and efficiency of gas engines. Prof. H. Fritz, xliii. 400.

Simon's gas engine. M. Armengaud, jun., liii. 367.

## GAS LIGHT :—

Historical notice. C. B. Vignoles, xxix. 305.

Benzole as a gas-light. C. B. Mansfield, viii. 217.

Composition of illuminating gases. L. Grotowsky, li. 390.

Gas-lighting *versus* Electric lighting. P. Heilmann-Ducommun, xlvii. 419;

Dr. P. Higgs and J. R. Brittle, lii. 48, 89; Dr. J. Hopkinson, 69;

E. A. Cowper, 70; R. H. Brunton, 79; Sir W. Thomson, 83; C.

Woodall, 86.

Photometry. W. Sugg, xlv. 151, 171; Dr. H. Letheby, 159; H. Law, 164; Dr. W. Pole, 166; Prof. W. G. Adams, 169.

— Illuminating power of gas, as affected by composition and velocity of escape. C. B. Mansfield, viii. 208, 223.

— "Experiments on the standards of comparison employed for testing the illuminating power of coal gas." T. N. Kirkham, xxviii. 440.

(2 plates.)—Discussion: T. N. Kirkham, xxviii. 453, 470; W. Sugg, 454;

F. J. Bramwell, 456; H. Jones, 456, 462; F. W. Hartley, 457; H. Gore,

458; A. Penny, 459; A. Upward, 461; R. P. Brereton, 461; T. E. Har-

rison, 462; J. Church, 462; H. E. Jones, 463; G. Berkley, 464; W. At-

kinson, 464; C. B. Vignoles, 465; A. H. Wood, 465; G. Glover, 466;

A. G. Anderson, 468; C. H. Gregory, 471.

— Illuminating power of gas. H. Jones, xl. 33; H. Gore, 51; H. E. Jones, 54;—W. Sugg, xlv. 157; Dr. H. Letheby, 162; A. G. Vernon-Harcourt, 163; Dr. W. Pole, 167; J. N. Douglass, 168.

— Formula for the illuminating power of gas. Dr. W. Pole, xlv. 166.

— "On estimating the illuminating power of coal gas." W. Sugg, xlv. 151.—Discussion: W. Sugg, xlv. 159, 171; Dr. H. Letheby, 159; A. G. Vernon-Harcourt, 163; H. Law, 164; W. H. Barlow, 165; Prof. F. A. Abel, 165; Dr. W. Pole, 166; J. N. Douglass, 168; Prof. W. G. Adams, 169.

## GAS-METERS :—

"Construction and use of gas meters." A. A. Croll, iv. 211.—Discussion: A. A. Croll, iv. 218, 221; J. Defries, 218; J. I. Stevens, 219; J. Farey, 219, 220, 222; Capt. W. S. Moorsom, 219; J. T. Cooper, 219; G. Lowe, 220; A. Pellatt, 222.

Defries' dry gas-meter. N. Defries, ii. (1842) 89.

"Description of a new gas regulator." J. Milne, ii. (1840), 61.—Discussion: G. Lowe, i. (1840), 61.

Dry gas-meter, by S. Clegg, i. (1838), 14.

"Measurement of gas, and the classes of gas meters in general use." W. Crosley, xix. 674.

Recent improvements in gas-meters. M. Armengaud, jun., liii. 365.

## GAS WELLS, in Pennsylvania. L. Smith, xlv. 355.

## GAS WORKS :—

"Account of the machinery and apparatus for compressing and using gas for artificial illumination at the portable gas works of London, Edinburgh, Manchester, and Paris." C. Denroche, ii. (1842), 137.

"Construction of gas works." H. E. Jones, xl. 2. (2 plates.)—Discussion: Dr. Letheby, xl. 21; S. Hunter, 24; G. T. Livesey, 26; H. E. Jones, 30; T. N. Kirkham, 34; R. Morton, 30; V. Wyatt, 40; R. H.

Gas works—*continued*.

Patterson, 42; A. G. Vernon-Harcourt, 44; O. C. D. Ross, 46; C. Woodall, 46; H. Gore, 50; A. F. Wilson, 52; R. Jones, 53; H. E. Jones, 53; T. E. Harrison, 59.

Gas holders, tanks for. Construction of. H. E. Jones, xl. 15, 59; G. T. Livesey, 28; R. Morton, 39; V. Wyatt, 41; C. Woodall, 49.

— construction of. H. E. Jones, xl. 13, 56, 57; G. T. Livesey, 27; H. Jones, 33; T. N. Kirkham, 36; V. Wyatt, 40; C. Woodall, 48; M. Arson, xlv. 353.

— explosions. Herr Schiele, xxxix. 386.

Körting's steam-jet scrubber. B. Körting, li. 386.

Berlin. Gasholder of the Berlin gas works. W. Schwedler, xlviii. 326.

Brussels gas works. P. Julien, xlviii. 324.

Middlesbrough-on-Tees gasworks. "Specification and working drawings of the." P. Henderson, i. (1840), 6.

Pernambuco. W. M. Peniston, xxii. 390.

"Portlade gas works." J. B. Paddon, xxxvii. 316. (3 plates.)—Discussion: J. B. Paddon, xxxvii. 325, 330; J. Aird, Jun., 325; H. E. Jones, 325; H. Brothers, 326; R. Harris, 327; C. Woodall, 327; H. P. Stephenson, 327; J. Church, 328, 330; A. F. Wilson, 329; H. Finlay, 329; J. G. C. Curtis-Godsmen, 330.

— Gas-compressing pump. F. J. Bramwell, xxiii. 302.

See *Gas*, coal, manufacture of.

## GASES:—

Composition of the gases of the Bessemer converter. A. Tamm, xlv. 313.

Compressibility of gases. L. Cailletet, lvi. 389.

Dependence of the specific heat at constant volume, and the conductivity of gases on the temperature. A. Wüllner, liv. 394.

Dielectric constants of gases. L. Boltzmann, xlii. 374.

Discharge of the permanent gases with reference to the hypothesis of Saint-Venant and Wantzel. J. Illeck, li. 384.

Dissociation of gases at high temperature. L. Cailletet, lii. 364.

Expansion of a gas without variation of heat, and without external work. J. Moutier, xlv. 358.

Laws of gases. Dr. Mendéléeff, xlv. 299.

Liquefaction of gases, lii. 393.

Specific heat of gases. E. Wiedemann, xlv. 301.

See *Air*, its derivatives; *Gas*, its derivatives.

## GEOLOGY:—

Action of rivers in the economy of nature. J. T. Harrison, vii. 328.

"Construction and use of geological models in connection with civil engineering." T. Sopwith, i. (1841), 163.

Geological sections of railway cuttings. T. Sopwith, i. (1841), 61.

— models. T. Sopwith, i. (1841), 62.

Natural formation of stone. Dr. Buckland, vii. 66.

Utility of geology in engineering. J. Walker, i. (1840), 36;—Sir J. Rennie, v. 107;—Dr. Buckland, ix. 14, 19, 21.

## Geology—continued.

- "Vertical structure of the primary rocks, and the general character of their gold-bearing varieties." E. Hopkins, xv. 48. (1 plate.)
- Brazil. Geological character of the province of Pernambuco. W. M. Peniston, xxii. 389.
- Geology of the district of São Paulo. D. M. Fox, xxx. 43.
- Bristol. Stratification of ground at Cumberland basin. W. R. Browne, lv. 57.
- Calcutta, stratification, &c. of soil at. G. Turnbull, liii. 18.
- Denmark, upheaval of the land. J. Paton, xxi. 427.
- England, east coast, general depression of the. T. E. Harrison, xviii. 421, 492.
- from the Thames to the Wash. J. B. Redman, xxiii. 186; Sir G. B. Airy, 238.
- south coast. Alluvial formation. J. B. Redman, xi. 162.
- English Channel, charts of the. J. T. Harrison, vii. 358.
- Connection of England and the Continent. J. T. Harrison, vii. 338.
- "Geological conditions affecting the construction of a tunnel between England and France." J. Prestwich, F.R.S., xxviii. 110.
- Festiniog slate quarry (section). A. A. Langley and C. J. Bellamy, xvi. 211.
- Ganges, soil of the delta of the, borings. J. A. Longridge, xxi. 17.
- Grimsby, Great, stratification. E. H. Clark, xxiv. 39.
- Holland. Strata at the Poldervaart canal. Chev. Conrad, vi. 150.
- Humber, stratification, banks of the. J. Paton, xxi. 455.
- Istria. Stratification at Albona. Hr. Hinterhuber, lvii. 405.
- Kurrahee, rocks in the neighbourhood of: Stratification. J. Brunton, xxii. 461.
- London basin, section of the, from the Chiltern Hills to the River Thames and through London. Rev. J. C. Clutterbuck, ix. 154.
- sections of the. W. Gravatt, (T) i. 151.
- Geology of the. Rev. J. C. Clutterbuck, ii. (1842), 155; Dr. Buckland, 158.
- Stratification of the, Kentish Town section. G. R. Burnell, xxiii. 472.
- Mont Cenis tunnel, geology of. T. Sopwith, jun., xxiii. 260.
- New Zealand. Geological section of Lyttleton tunnel, Canterbury. E. Dobson, xxix. 121.
- North Sea, geology of the. J. T. Harrison, vii. 337; R. Rawlinson, 360; J. Murray, 369.
- Panama, geological sections of the Isthmus of. Lt.-Col. J. A. Lloyd, ix., plate 5.
- Paris basin, stratification of the, at Passy and at Grenelle: section. G. R. Burnell, xxiii. 472.
- Portland, formation of the Great Western Bay at. J. T. Harrison, vii. 346.
- Punjab Northern State railway. Stratification at Jhelum bridge. F. M. Avern, liv. 94, 95.
- Pyrenees (Central), passes and geology of the. M. Mille, xli. 233.
- St. Gothard tunnel, Geology of, xxxix. 325; xlii. 230.
- Scarle, Lincolnshire, stratification and geological formation at. Prof. E. Hull, xlix. 162.
- Tyne, longitudinal section of the. T. E. Harrison, xviii. 502.
- Whiston pumping station, geological section at. T. S. Stooks, xlix. 221.

## Geology—continued.

- Wylam, Northumberland, stratification at. W. G. Laws, lvi. 263.  
 Yorkshire chalk, geological section and plan of the. J. R. Mortimer, lv. 252.  
 See *Chalk*; *Chesil Bank*; *Coal fields*; *Coal measures*; *Coast*, English;  
*Hydrogeology*; *London Clay*; *Mines*; *Sea*; *Shingle*, movements of; *Wells*.

## GIRDERS:—

- Apparatus for measuring the strains on iron constructions. M. Dupuy, lii. 296.  
 Calculation of the bending moments and deflection of straight metallic girders of several spans. M. Choron, xl. 270.  
 — of continuous girders, when the variation of the moments of inertia in the different cross sections is taken into account. M. Kleitz, xiv. 275.  
 Cast-iron girders trussed with wrought iron: principle of construction and causes of failure. W. Fairbairn, vi. 215, 216; J. Farey, 218; R. Stephenson, 219, 223, 224; G. P. Bidder, 220; C. B. Vignoles, 220, 223; W. Handyside, 221; B. Albano, 222.  
 Comparative distribution of stress in trusses of various forms. C. Reilly, xxiv. 395.  
 Corrugated and trough girders. P. W. Barlow, xvi. 77.  
 "Description of a new system of trussed girder of wrought and cast iron for bridges." F. Nash, iii. 102.  
 Determination of the stress on the diagonals and verticals of single trellis girders, liv. 292.  
 "Economic distribution of material in the sides, or vertical portions, of wrought-iron beams." J. Barton, xiv. 443.—Discussion: P. W. Barlow, xiv. 459, 463, 483, 486; Mr. Baker, 459; C. Manby, 459; W. T. Doyne, 460, 488; G. P. Bidder, 464, 474, 481; J. Barton, 465, 477, 488; T. Higginbotham, 465; G. H. Phipps, 465; G. W. Hemans, 467, 474, 489; R. Stephenson, 468, 474, 479, 484, 486; R. J. Hood, 474; W. H. Barlow, 480, 486; E. A. Cowper, 480, 489; Capt. Moorsom, 487, 489; J. Hawkshaw, 487.  
 Erection of girders. See *Bridges*, wrought iron.—Erection of girders.  
 Experimental cast-iron girders. G. Berkley, xxx. 227, 252.  
 "— determination of the strains on the suspension ties of a bowstring girder." W. Airy, xxvii. 443. (2 plates.)—Discussion: W. Airy, xxvii. 448, 449; W. H. Barlow, 448; Capt. H. W. Tyler, 448; J. T. Harrison, 449.  
 "Experiments on the strength of iron girders." T. Cubitt, i. (1841), 116.  
 Girders and beams of wrought iron, durability of. E. Clark, xxvii. 559, 578; W. Pole, 571; J. W. Bazalgette, 572; T. M. Johnson, 573; J. Brunlees, 575.  
 — of wrought iron or cast iron in fire-proof buildings. J. Barrett, xii. 248, 253, 254.  
 "Hodgkinson's experiments on cast-iron girders." T. Webster, i. (1837), 30.  
 Influence of length of bearings on stability of longitudinal beams of bridges. E. Dubosc, lviii. 370.  
 "Investigation of the strains upon the diagonals of lattice beams, with the resulting formulæ." W. T. Doyne and W. B. Blood, xi. 1.—Discussion: W. T. Doyne, xi. 10, 11, 12; P. W. Barlow, 11; Capt. O'Brien, 12; C. May, 12; Sir W. Cubitt, 13; J. Hawkshaw, 13; I. K. Brunel, 14; J. M. Rendel, 14.  
 Limiting spans of girders. W. H. Barlow, xxx. 92.



Girders—*continued.*

- Limiting stress in girders. C. Reilly, xxiv. 394, 413.
- Method of setting out the dimensions of plate girders. R. Krohn, lvi. 303.
- "Relative proportions of the top, bottom, and middle webs of iron girders and tubes." J. M. Heppel, xv. 155.—Discussion: J. M. Heppel, xv. 191; E. Clark, 192; Prof. Hodgkinson, 193; R. Stephenson, 193.
- Rolled wrought-iron joists. J. Barrett, xii. 258.
- "Series of experiments on the strength of cast iron." F. Bramah, (T.) ii. 113.
- "— on the elastic weight and strength of cast-iron beams." F. Bramah, i. (1837), 45.
- Set of cast-iron girders when proved. T. Dines, xiii. 471, 472; T. Hawksley, 473.
- Strains in lattice girders. W. T. Doyne and B. Blood, xi. 4, 5, 7.—J. Barton, xiv. 447, 450; W. T. Doyne, 462; G. H. Phipps, 467; R. Stephenson, 470.
- "Strength of iron girders." W. B. Bray, i. (1837), 29.
- Transverse strength of flanged cast-iron beams or girders. E. Hodgkinson's formula: R. Stephenson, vi. 223;—Tredgold's formula, xi. 75;—W. T. Doyne, xiv. 462, 488; his formula, 462, 463. Prof. Barlow's formula, 487.
- Formula by W. T. Doyne, xvi. 77, 78;—G. H. Phipps, xxx. 258.
- Truss girders *versus* plate girders. Z. Colburn, xxii. 557.
- Trussed cast-iron girders for railway bridges:—Dee bridge, Chester, R. Stephenson, vi. 220; Lea bridge, Tottenham, G. P. Bidder, 220. North Union Railway: C. B. Vignoles, 220. Factors of safety: R. Stephenson, vi. 224; Sir J. Rennie, 224.
- girders in fireproof buildings, failure of. W. Fairbairn, vi. 214; J. Farey, 217; C. B. Vignoles, 223; R. Stephenson, 223.
- Tubular girders, formula for the strength of: W. Fairbairn, ix. 235. Formula by E. Hodgkinson, 251.
- Tables of proportions: W. Fairbairn, ix. 238.
- "Uniform stress in girder-work, illustrated by reference to two bridges recently built." C. Reilly, xxiv. 391, 450. (5 plates).—Discussion: C. Reilly, xxiv. 426, 450; G. H. Phipps, 427, 447; J. M. Heppel, 431; E. Woods, 433; F. W. Sheilda, 433; R. Mallet, 435; F. J. Bramwell, 436, 446; W. H. Barlow, 445, 446; W. Gravatt, 446; F. Jenkin, 446; W. H. Bidder, 448; C. B. Lane, 449; W. Pole, 449; P. W. Barlow, 449.
- Warren truss girder, applied in the Newark Dyke bridge. J. Cubitt, xii. 601.
- Strains in. J. Barton, xiv. 447; G. P. Bidder, 475.
- Merits of the. J. Brunton, xxii. 471.
- Bowstring girder *versus* Warren and lattice girders. E. L. I. Blyth, xxi. 263.
- Warren girders *versus* lattice girders. C. Reilly, xxiv. 395; P. W. Barlow, 449.
- Plate girders *versus* lattice girders and Warren girders. Sir C. Fox, xii. 608; G. P. Bidder, 608; C. B. Vignoles, 609; R. Stephenson, 610; E. Hodgkinson, 611; J. M. Rendel, 611;—J. Barton, xiv. 448, 478, 488; W. T. Doyne, 462; G. P. Bidder, 464, 475, 481; G. H. Phipps, 466; R. Stephenson, 468, 474, 479, 485; R. J. Hood, 474; E. A. Cowper, 480, 489; Capt. W. S. Moorsom, 487, 489; J. Hawkshaw, 487.

Camden Town station, strength of cast-iron girders for. W. T. Doyne, xiv. 462.

**Girders—continued.**

Gravesend. Cast-iron girders, Terrace pier. J. B. Redman, iv. 237, 247; W. Fairbairn, 247.

Manchester. Wrought-iron tube girder for joint railway station. A. S. Jee, xi. 225, 331, 232; R. Russell, 234; J. S. Russell, 233, 236, 238; J. Fowler, 233; W. Pole, 236; G. P. Bidder, 236; I. K. Brunel, 237.

— Girders made of Stirling's toughened cast iron for joint railway station. A. S. Jee, xi. 227-230.

Marseilles docks. Rolled iron girders for warehouse floors. T. Hawthorn, xxiv. 153.

Melbourne waterworks. Expansion and contraction of tubular girder. M. B. Jackson, xviii. 373.

New Victoria bridge, strains in continuous girders of. C. D. Fox, xxvii. 82.

Salford. Cast-iron girders for railway viaduct. J. Hawkshaw, xi. 242; tests, 243.

Sandwich girders, Northern and Eastern railway. G. P. Bidder, vi. 222; London docks by Smeaton, 222.

Tame valley canal. Cast-iron girders. J. R. McClean, iv. 247, 248.

Trent. Models of elliptical cast-iron arches for a bridge over the, near Newark; and a bridge at Standish, near Gloucester. T. F. Chappé, xviii. 349, 351, 359, 362; table, 354; W. H. Barlow, 356; W. Fairbairn, 356; J. F. Bramwell, 358; R. Stephenson, 360; J. Locke, 361.

United States, manufacture of rolled girders, in the. Z. Colburn, xxii. 550.

See *Beams*, strains in; *Beams*, transverse strength of; *Bridge*.

**GLASS:—**

Annealing glass. A. Pellatt, i. (1840), 39, 40; J. Parkes, 40.

Certain changes in glass (exfoliation). V. de Luynes, xlix. 383.

Elasticity of flint glass. A. Pellatt, i. (1840), 38.

Engraving on glass by electricity. G. Planté, lii. 403.

Glass for electrical insulation (analyses of glass). A. J. v. Oettingen, liii. 388.

— used in lighthouse apparatus. D. M. Henderson, xxviii. 3.

Glass Furnaces. See *Furnaces*.

Manufacture of crown glass. W. N. Clay, iii. 232.

“— of flint glass.” A. Pellatt, i. (1840), 37.

— of window glass, on the different systems of ovens employed in. C. Tock, xli. 334.

Recovery of sulphur from gypsum and sulphate of soda, in the manufacture of glass. Dr. O. Schott, xlviii. 362.

Strength of glass tubes. J. J. Hawkins, i. (1840), 41.

“Use of mica, as a substitute for glass, in the windows of workshops.” J. Glynn, i. (1840), 43.

**GOLD:—**“On the vertical structure of the primary rocks, and the general character of their gold-bearing varieties.” E. Hopkins, xv. 48.—Discussion: E. Hopkins, xv. 57, 68; C. B. Vignoles, 58; J. Taylor, Jun., 58, 61, 62; J. Hawkshaw, 59; W. Smyth, 60, 63; J. Calvert, 60, 62; C. May, 62; Mr. Maugham, 62; Prof. Tennant, 62; D. Mushet, 65; Prof. Tyndall, 67; C. Manby, 73.

**GOODWIN SANDS**, supposed origin of, described by Bishop Latimer, xlix. 138.

**GOVERNOR:—**

Chronometric governor, description and drawing of, invented by F. W. and C. W. Siemens, v. 255. (2 plates.)—Discussion: R. Stephenson, v. 261; J. Woods, 261, 264; H. Carpenter, 262; J. Field, 263; W. Thorold, 264; C. May, 265; C. E. Amos, 265; R. Davison, 265.  
 Dunlop's marine governor. R. Bruce Bell, li. 34.  
 Silver's governor: J. Grantham, xxix. 131.

**GRANITE.** "Artificial granite." G. F. White, xi. 490.

See *Cements*.

— Remarks on Herm Granite. F. C. Lukis (T.) i. 231.

— use of. See *Pavements*.

**GRAPHITE** from gas retorts. J. Parkes, i. (1839), 69; G. Lowe, 69.**GROYNES:—**

Cause of accumulation beside groynes. Sir J. Coode, lv. 88.

Groynes for arresting the progress of shingle on the coast. J. T. Harrison, vii. 344, 354.

Piers from sandy shores acting as groynes. J. Abernethy, lv. 50, 67; A. Giles, 52, 64; W. Parkes, 62; J. C. Hawkshaw, 66; H. Hayter, 70; Sir J. Coode, 89; J. E. Williams, 95.

Utility of groynes in rivers. J. T. Harrison, viii. 327.

Clyde. Groynes and parallel dykes. W. Bald, v. 315; J. Walker, 316;— J. S. Russell, vii. 245.

Cranz, works for the protection of the sea coast at. H. Herzbruch, li. 377.

Danube. Groynes, or spurs, and walls. B. W. Croker, vii. 248.

Dee, groynes in the. J. S. Russell, vii. 244.

Edinburgh, groynes at sea walls near. W. J. M. Rankine, vii. 189; J. Murray, 199.

Folkestone, pier at, as a groyne. J. B. Redman, lv. 60.

Ganges. Groynes, Lower Ganges canal. Major H. H. Jones, R.E., li. 364.

Holland, groynes on the slopes of embankments, on the coast of. J. Macneill, ii. (1842), 129.

— Helder shore, coast of. G. B. W. Jackson, vi. 105.

Hornsea Groynes. R. Pickwell, li. 209.

India, training banks with groynes, for conserving the river channels above railway bridges in. C. Stone, xxxix. 215.

— Groynes at Jhelum bridge, Punjab Northern State railway. T. M. Avern, liv. 98.

— Groynes in the Jumna. E. J. Jones, liv. 119.

Lowestoftness, groynes at. G. Edwards, vi. 144.

Lowestoft, groynes at. G. P. Bidder, viii. 203. Kentish coast, 203.

Malahide estuary, protecting groynes in the. G. W. Hemans, xiv. 248.

Penmaenmawr. Groynes at sea wall. R. Stephenson, vi. 124.

Rhone, groynes for the regulation of the. B. Honsell, lv. 360.

Schleswig and Holstein, employment of groynes at sea dykes of. J. Paton, xxi. 487.

South coast, groynes on the: J. T. Harrison, viii. 201, 205; Capt. W. S. Moorsom, 201; J. B. Redman, 205; xi. 162, 178;—J. Wright, xi. 214.

Groynes at Brighton and Dover: J. Wright, vi. 132;—G. Rennie, viii. 201; Capt. W. S. Moorsom, 202.

**Groynes—continued.**

Spurn Point, groynes at. J. Coode, xxiv. 54;—W. Shelford, xxviii. 479; J. F. Bateman, 499; J. Coode, 501, 515; T. Harrison, 508.

— groynes between, and Flamborough Head. R. Pickwell, li. 206.

Sunderland. Timber groynes at the Town Moor. J. Murray, vi. 144.—W. Brown, viii. 187, 198.

“— Description of the groynes formed on the South rocks for forming the new docks at.” W. Brown, viii. 186. (1 plate.)—Discussion: J. Murray, viii. 194, 195, 197, 198, 200; J. Lealie, 195; J. Walker, 197; Capt. Moorsom, 198, 201; J. S. Russell, 198, 199, 200, 202; W. Cubitt, 200, 203; G. Rennie, 201; J. T. Harrison, 201, 205; G. P. Bidder, 203; J. Farey, 204; J. B. Redman, 205.

— Groynes at Sunderland docks. J. Murray, xv. 421, 423, 425, 426, 431, 433. 441. Action of groynes, 445; G. P. Bidder, 454.

Tees. Groynes and parallel walls, river Tees. J. Simpson, vii. 246; W. Cubitt, 246;—Jos. Taylor, xxiv. 64, 65, 67, 69, 103; R. W. Jackson, 78; N. Beardmore, 85; W. A. Brooks, 97; J. Hawkshaw, 100.

Withernsea groynes. R. Pickwell, li. 207.

See *Rivers*—Treatment.

**GUANO**, Peruvian, deposits. A. Durand-Claye, xlii. 369.

**GUN**. See *Artillery*.

**GUN-BOATS**. See *Ships of war*.

**GUN-CARRIAGES**. See *Artillery*.

**GUN-COTTON**. See *Explosive Agents*.

**GUN-METAL**, corrosion of, by gas. B. L. Vulliamy, v. 361.

**GUNPOWDER**. See *Explosive agents*.

— explosive force of. See *Artillery* (Ballistics).

— charcoal furnaces. See *Furnaces*.

**GUTTA PERCHA**, moisture absorbed by. C. W. Siemens, xxi. 523.

— tensile strength of tubes. E. Highton, xvii. 315.

**GYPSEUM**, use of, as manure. H. Schwarz, xlii. 371.

**HAMMERS**, atmospheric, xlviii. 346.

**HAMMERS**, steam. See *Steam Hammers*.

**HARBOURS:—**

Historical notice. Sir J. Rennie, iv. 307; v. 37;—J. M. Rendel, xi. 156.

“Construction of harbour and marine works with artificial blocks of large size.” B. B. Stoney, xxxvii. 332. (2 plates.)—Discussion: J. Abernethy, xxxvii. 356; W. Parkes, 356, 364; C. B. Lane, 360; L. F. Vernon-Harcourt, 361; B. B. Stoney, 363, 374; Sir J. Hawkshaw, 364; Sir J. Coode, 365; Dr. W. Pole, 367; J. F. Bateman, 368; W. D. Cay, 369; J. I. Thornycroft, 370; J. B. Redman, 371; A. T. Andrews, 372; J. N. Douglass, 372; T. E. Harrison, 377; R. G. Elwes, 378; Lt.-Col. Playfair, 379.

**Harbours—continued.**

- New design for harbour entrances. A. Cialdi, lviii. 384.  
 Principles of construction of artificial harbours. Sir J. Rennie, v. 38; vi. 22, 24.  
 Silting of harbours, cause of. W. Parkes, lv. 63.  
 Sluicing or scouring waterways. J. M. Rendel, xv. 449; I. K. Brunel, 449;  
 T. Webster, 452; J. Gibbs, 453; G. P. Bidder, 453. Dunkirk, Boulogne,  
 Ostend: J. Gibbs, 451. Oporto, 453.  
 Utility of land-drainage for the preservation of harbours. W. A. Brooks,  
 xxvi. 408.  
 See *Bars, &c.*; *Breakwaters*.  
 National: various depths at low water. J. B. Redman, xlv. 121.
- Aberdeen. Historical notice. J. Abernethy, xxi. 323, 342; J. Murray,  
 335; D. Stevenson, 337.  
 Alderney: Braye Bay. "Account of the construction and maintenance of  
 the harbour at Braye Bay, Alderney." L. F. Vernon-Harcourt, xxxvii. 60.  
 (6 plates.)—Discussion: J. B. Redman, xxxvii. 84; J. Jackson, 86;  
 Sir J. Coode, 92; Sir J. Hawkshaw, 94; Col. Jervis, R.E., 95; Sir E.  
 Belcher, 96; J. A. McConnochie, 101; W. Parkes, 103; B. B. Stoney, 105;  
 T. R. Winder, 106; L. F. Vernon-Harcourt, 107.  
 Belfast. "On the velocity of water in Belfast Harbour." W. Bald, i. (1837), 37.  
 — "The river Lagan and harbour of Belfast." T. R. Salmon, lv. 22.  
 (1 plate.)—Discussion: see J. E. Williams's Paper on Whitehaven  
 harbour and dock (*below*).  
 Boulogne. Effect of parallel piers at Boulogne harbour. J. Abernethy,  
 lv. 69; C. Bergeron, 74; R. Aitken, 83.  
 Bowling. Harbour of Bowling, Forth and Clyde canal. J. Deas, xxxvi. 136.  
 Brest. The new harbour works at Brest, xl. 313.  
 Buffalo. Sir C. A. Hartley, xl. 224.  
 Canterbury, New Zealand: Lyttleton Harbour. E. Dobson, xxix. 111;—  
 G. Thornton, lvi. 275.  
 Chicago. Sir C. A. Hartley, xl. 219.  
 Dublin Harbour works. Diving bell and barge. B. B. Stoney, xxxvii. 339,  
 375; Sir J. Coode, 366.  
 Eagle. Removal of rock obstructing the entrance to Eagle Harbour, Lake  
 Superior. L. W. Schermerhorn, xlix. 349.  
 Fiume. Harbour works in Fiume. J. Wilfan, xlii. 281.  
 Flushing. The Harbour works, lv. 372.  
 Galveston. Improvement of the entrance to Galveston harbour. C. W.  
 Howell, i. 206.  
 Glasgow. Plans of the harbour of Glasgow, in 1800, 1840, 1862. J. Deas,  
 xxxvi. 132.  
 Greenock. "Structures in the sea without cofferdams, with a description  
 of the works of the new Albert harbour at Greenock." D. Miller, xxii.  
 417. (2 plates.)—Discussion: D. Miller, xxii. 439, 447; J. Mitchell, 439;  
 C. H. Gregory, 439; J. F. Bateman, 440; F. J. Bramwell, 440; N. Beard-  
 more, 440; F. W. Shields, 443; J. G. C. Curtis, 443; W. A. Brooks, 443;  
 J. Jennings, 445; J. Wright, 445; J. Brunlees, 446; W. Parkes, 446.  
 Harwich. J. B. Redman, xxiii. 226, 256. Sir G. B. Airy, 228; Sir J.  
 Rennie, 233; Capt. Burstal, R.N., 235; P. Bruff, 242; J. Murray, 245,  
 246; W. A. Brooks, 248.

Harbours—*continued.*

- Holyhead. G. P. Bidder, xviii. 129; J. Coode, 129.
- “ — New Harbour.” H. Hayter, xlv. 95. (2 plates.)—Discussion: H. Hayter, xlv. 113, 125; T. Lovell, 115; C. Rigby, 115; A. Giles, 116; Capt. Calver, R.N., 117; J. N. Douglass, 119; J. B. Redman, 121; J. Abernethy, 122; Sir J. Hawkshaw, 123; A. Giles, 125; W. D. Cay, 126; Sir J. Coode, 127; J. A. McConnochie, 127; W. Parkes, 128; B. B. Stoney, 130.
- Horta harbour of Fayal, Azores. A. K. de B. Ayalla, li. 375.
- Hull. “An account of the harbour and docks at Kingston-upon-Hull.” J. Timperley, (T.) i. 1.
- Kingstown. Notice of Kingstown harbour, Dublin. P. Henderson, ii. (1842), 148.
- Madras, notice of harbour. J. F. Bateman, lii. 17.
- Kurrachee. J. Brunton, xxii. 451; W. P. Andrew, 482; W. A. Brooks, 487; W. Parkes, 488.—W. H. Price, xliii. 1; W. A. Brooks, 23; Sir B. Ellis, 26; Lt.-Gen. Tremenheere, 26; T. E. Harrison, 27; R. Aitken, 28; Capt. E. K. Calver, 29; A. Giles, 32; Capt. E. Giles, I.N., 33; W. Parkes, 44.
- Marseilles. Historical notice: J. Murray, xxiv. 171; J. B. Redman, 178. Employment of blocks of concrete in construction: Sir J. Rennie, xviii. 132. Account of the harbours: G. Rennie, xviii. 134; J. Murray, 136; —Dr. W. Pole, xxxvii. 367; J. F. Bateman, 368.
- Nieuwepdiep. Works executed in forming the harbour of Nieuwepdiep at the Texel Roads, by F. W. Conrad. vi. 104.
- Ostia. “On the ancient harbour of Ostia.” Sir John Rennie, iv. 307. (8 plates.)—Discussion: F. Giles, iv. 320; Sir J. Rennie, 321; W. Thorold, 323.
- Port Talbot. “Description of the harbour of Port Talbot, Glamorganshire.” H. R. Palmer, ii. (1843), 188.
- Ramsgate, historical notice. Sir J. Rennie, v. 37.
- Sestao. Bilbao Iron Ore Company's harbour at Sestao. F. C. Barron, li. 243.
- Shields. W. A. Brookes, xxvi. 415.
- Silloth. J. Abernethy, xxi. 324.
- Spezzia. M. Maldini, xxxix. 396.
- Sunderland. “An account of the progressive improvement of Sunderland Harbour and the River Wear.” J. Murray, vi. 256. (9 plates.)—Discussion: J. Murray, vi. 277, 278, 281; J. Simpson, 278; Sir J. Rennie, 280, 283; J. Walker, 281, 282; G. P. Bidder, 282; G. Edwards, 283.
- Trieste. The new harbour works at Trieste. F. Bömches, xli. 288.
- “Whitehaven harbour and dock works.” J. E. Williams, lv. 36. (2 plates.)—Discussion on this Paper, J. B. Mackenzie's Paper on the Avonmouth dock (p. 70), and T. R. Salmond's Paper on Belfast harbour (p. 113):—J. Abernethy, lv. 49, 67; A. Giles, 52, 64; W. R. Browne, 54; J. B. Redman, 59; F. E. Duckham, 60; W. Parkes, 61; C. E. Daniel, 64; J. B. Mackenzie, 64, 90, 114; C. Graham Smith, 64; G. E. Eachus, 66; J. C. Hawkshaw, 66; J. Grant, 67; H. Hayter, 70; C. Bergeron, 74; R. Aitken, 83; Sir J. Coode, 85, 89; Col. Martindale, 89; A. C. Andros, 89; J. E. Williams, 94, 120; W. J. Doherty, 97; J. P. Griffith, 102; Sir C. Hartley, 103; W. R. Kelly, 106; W. Stanley, 107; B. B. Stoney, 112; T. R. Salmond, 118; G. F. Lyster, 120.

**Harbours—continued.**

Wick. "Account of the town and harbour of Pulteney Town [Wick, Caithness], from their origin in 1803 to the year 1844." J. Bremner, iii. 115.

Wilmington. Principles of tidal harbour improvement, as applied at Wilmington, Cal. C. B. Sears, xlviii. 293.

**HARBOURS OF REFUGE:—**

Construction of harbours of refuge with concrete. D. Miller, xxii. 428.

"Harbours of refuge." Earl of Lovelace, vii. 366.—Discussion: J. Walker, vii. 398, 415; Sir J. Rennie, 402, 414; J. M. Rendel, 409; Earl of Lovelace, 410; Gen. Pasley, 411, 414; J. Murray, 411, 414; J. S. Russell, 414.—in the Mediterranean. G. R. Stephenson, xlv. 5.

Proposed harbours of refuge on the east coast. R. W. Jackson, xx. 354; P. Bruff, 359; R. Rawlinson, 360; J. Murray, 367; G. P. Bidder, 374, 521.—G. R. Stephenson, xlv. 6.

Reports of committees on the construction of. T. R. Winder, xviii. 91; G. P. Bidder, 122, 129; J. Cooper, 130; J. B. Redman, 131.

Spurn Point for a harbour of refuge. E. H. Clark, xxiv. 59.

Sulina harbours of refuge in the Black Sea. C. A. Hartley, xxi. 291.

**HEALTH**, General Board of, on flow of water through pipes. See *Water*, flow of, through pipes.

**HEALTH OF TOWNS COMMISSIONERS**, report of. J. Simpson, vii. 95; J. Walker, 104.

**HEAT:—**

Application of the mechanical theory of heat to the study of volatile liquids; simple relations between the latent heat, atomic weight, and tension of vapours. B. Pictet, xlviii. 332.

"Conversion of heat into mechanical effect." C. W. Siemens, xii. 571.

Dependence of the specific heat at constant volume, and the conductivity of gases on the temperature. A. Wüllner, liv. 394.

Diathermancy of metals and paper. M. Aymonnet, xlix. 379.

Distribution of heat developed by percussion. H. Tresca, xl. 358.

Dynamical theory of heat: C. W. Siemens, xii. 571. Lord Bacon's views. 578, 591. Mechanical equivalent, 574. Joule's mechanical equivalent of heat: R. Hunt, xvi. 397.

Evaporation of superheated liquids. D. Gernez, xlv. 357.

Expansion of iron by heat. G. Rennie, (T.) iii. 215, 218.

— See *Expansion*.

"Experiments and observations on the emission of heat by hot-water pipes." (S.) W. Anderson, xlviii. 257. (1 plate.)

Heat generated by oxidation of iron. H. C. Forde, xxi. 500, 501.

Influence of heat and light on the electrical conductivity of selenium and some metals. W. Siemens and G. Hansemann, lii. 400.

Latent heat of ether. C. W. Siemens, xviii. 290.

Loss of heat by radiation from steam boilers. J. C. Hoadley, xlix. 374.

Mechanical equivalent of heat. J. Violle, xl. 362.

Radiation of Heat. Sr. Villari, lv. 439.

— of incandescent platinum. J. Violle, lvi. 387.

**Heat—continued.**

- Relation of specific heat at constant pressure and constant volume. J. J. Müller, xl. 359.  
 — of work done by diffusion to the second law of thermo-dynamics. R. Clausius, liv. 394.  
 Résumé of M. Hirn's new work on the mechanical theory of heat. O. Hallauer, xlv. 296.  
 Singular circumstance in the production of heat. J. Olivier, xlix. 378.  
 Specific heat of gases. E. Wiedemann, xlv. 301.  
 — of vapours. E. Wiedemann, lii. 392.  
 Study of thermic motors, and on certain points of the theory of heat. G. A. Hirn, xlv. 292.

**HEATING APPARATUS. See Warming.****HOISTS AND LIFTS:—**

- Apparatus for lifting segments of cylinders for pier, Grand River viaduct, Mauritius railways, by J. A. Longridge. W. Ridley, xxv. 241.  
 — for raising and lowering the tubes for the reconstruction of Dinting and Mottram viaducts. W. Fairbairn, xxii. 331, 332, 335.  
 Appleby's direct-acting steam-hoists. A. Robinson, xlix. 16.  
 Brick-raising apparatus. P. Journet, iii. 221.  
 Endless ladder for lifting concrete for cylinder piers, Grand River viaduct, Mauritius railways. W. Ridley, xxv. 241.  
 Floating hoist for concrete blocks. J. Barton, xlv. 139.  
 Hoist for dredged material (mud and sand). F. C. Barron, li. 245.  
 Hoisting machinery employed in the construction of the bridge aqueduct of Roquefavour, xiv. 225.  
 Hoists in mills in Lancashire. G. W. Sutcliffe, lviii. 276.  
 Pneumatic system of raising minerals, by exhaustion, at Epinae Collieries. Z. Blanchet, lvii. 380.  
 Renhay's pneumatic corn elevator. A. Marnier, liv. 348.  
 Steam hoists in America. Sir J. Hawkshaw, l. 89.  
 Tackle used in elevating the sections of the stand-pipe at the East London waterworks. T. Wicksteed, iii. 214.  
 Ventilating lifts at St. Peter's Hospital, Brussels. E. Carez, lvii. 423.  
 See *Canal lifts*; *Coal, shipment of*; *Hydraulic hoists* and lifts; *Mines*.

**HORSES, power of:—**

- Application of the power of horses to raising water. "Results of the application of horse-power to raising water from the working shafts at Saltwood tunnel on the South Eastern railway in 1842." F. W. Simms, ii. (1843), 112.—Discussion: H. R. Palmer, ii. (1843), 114; J. Field, 114; J. I. Hawkins, 114; W. Gravatt, 115; J. Walker, 115; G. Rennie, 115; Hon. C. Wood, 116; R. Davison, 117; J. Horne, 117; N. Beardmore, 119.  
 Comparative cost of haulage by steam and by horses. J. Head, xxxvi. 76.  
 Condition of greatest efficiency of horses. F. W. Simms, ii. (1843), 113; W. Gravatt, 115; Hon. C. Wood, 116; J. Horne, 117.  
 Horses *versus* compressed air. M. Mékarski, xlv. 256; liv. 332.  
 Pack-horses, Brazil. W. M. Peniston, xxii. 392.  
 Power of dray horses. J. Farey, x. 315.



Horses, power of—*continued*.

"Smeaton's estimate of animal power, extracted from his MS. papers."

J. Farey, i. (1839), 50.

Work of dray horses. G. Rennie, ii. (1843), 116; R. Davison, 117.

— of horses drawing slow boats and fast boats on canals. G. Rennie, ii. (1843), 115, 116.

— of a horse drawing a load on a railway. N. Beardmore, ii. (1843), 119.

HORSE-POWER, NOMINAL. See *Steam-engine*.

HUMIDITY. See *Moisture*.

HYDRAULIC MACHINERY—General references:—

Accumulators. H. Robinson, xlix. 3.

— acting by weight, water, or steam, by M. Scott, xlix. 65.

— invention of: Sir W. G. Armstrong, l. 71. Employed at the Ferry station at New Holland on the Humber, 71; and at Great Grimsby, 72; at Birkenhead, 73.

— employment of, for utilising mountain torrents: Sir W. G. Armstrong, l. 74. In the Vale of Allen, 74; W. E. Rich, 92.

"Application of water-pressure as a motive power, for working cranes and other descriptions of machinery." W. G. Armstrong, ix. 375. (3 plates.)

— Discussion: J. Richardson, ix. 383, 385; W. G. Armstrong, 384, 386; J. Glynn, 384; J. Walker, 385; J. Farey, 386; J. Simpson, 386.

"History of the modern development of water-pressure machinery." Sir W. G. Armstrong, C.B., l. 64. (3 plates.)—Discussion: Sir J. Hawkshaw, l. 89; J. Abernethy, 89; H. M. Brunel, 90; G. H. Phipps, 91; Col. Clay, 91; W. E. Rich, 92; F. E. Duckham, 93; R. H. Tweddell, 95; Sir W. G. Armstrong, 97; W. Matthews, 100.

HYDRAULIC MACHINERY FOR BRIDGES, &c.:—

Cotton's wharf, London. H. Robinson, xlix. 10.

Employment of hydraulic power for heavy guns. G. W. Bendel, xxxviii. 101, 126, 128, 131;—Sir W. G. Armstrong, l. 86.

Hydraulic machinery for drawbridge at Bowcombe Creek. G. C. Dobson, ii. (1843), 68.

— motors for drawbridges: Sir W. G. Armstrong, l. 85, 100. Draw-bridge at Millwall docks; consumption of water: F. E. Duckham, 95.

— for swing bridges: Sir W. G. Armstrong, l. 85. Swing bridge at Millwall docks: F. E. Duckham, 95.—J. Price, lvii. 7, 82; F. E. Duckham, 49; M. Barret, 61.

HYDRAULIC MACHINERY FOR DOCK SERVICE:—

Cost of working hydraulic machinery. H. Robinson, xlix. 57, 58; C. J. Appleby, 60.

Gate-crabs. F. E. Duckham, l. 94.

— hydraulic, for docking ships: Sir W. G. Armstrong, l. 83; H. M. Brunel, 90, 99. At Old docks, Swansea: J. Abernethy, l. 89.

Hydraulic machinery *versus* hand-labour for dock work. G. P. Bidder, xviii. 485;—W. T. Hendry, xxiv. 181.

Hydraulic machines, efficiency of, and of steam engines working them. H. Robinson, xlix. 49; E. B. Ellington, 37; C. Wawn, 39; T. Wrightson, 48; B. Walker, 46; H. Davey, 49.

**Hydraulic machinery for dock service—continued.**

Birkenhead docks. Sir W. G. Armstrong, l. 53.

"Bristol. Description of the hydraulic traversing frame at the Bristol terminus of the Great Western railway." A. J. Dodson, iii. 128.

Cardiff. Movable hydraulic cranes at Bute docks. J. A. McConnochie, xli. 122.

Egremont ferry landing. W. Carson, lii. 239.

Grimby Great docks. E. H. Clark, xxiv. 46.

— hydraulic tower, accumulator. E. H. Clark, xxiv. 50.

— Sir W. G. Armstrong, l. 70.

Hull, Albert dock. H. Robinson, xlix. 10.

London. London docks. H. Robinson, xlix. 11, 60.

— — movable hydraulic cranes at. Col. Martindale, C.B., xlix. 48.

— St. Katharine docks. H. Robinson, xlix. 11, 60.

— Victoria docks: W. J. Kingsbury, xviii. 465; G. P. Bidder, 485.  
— H. Robinson, xlix. 12.

Marseilles docks, Sir. W. G. Armstrong's machinery at: results of experiments for testing the performance and efficiency of this machinery. T. Hawthorn, xxiv. 159, 162; W. T. Hendry, 181.

Silloth dock: J. Abernethy, xxi. 327, 343; A. Giles, 337; T. E. Harrison, 338.

Sunderland docks. J. Murray, xv. 439.

Swansea, South docks: J. Abernethy, xxi. 316. Performance and cost, 319, 330, 334; Sir W. G. Armstrong, 338.

— docks. H. Robinson, xlix. 12.

Tyne docks. T. E. Harrison, xviii. 495, 514; A. Giles, 504; J. Murray, 505; J. Abernethy, 506; M. Scott, 511.

**HYDRAULIC MACHINERY—TRANSMISSION OF POWER:—**

Cost of maintenance of hydraulic machinery. B. Walker, xlix. 47.

Loss in transmission of power. H. Robinson, xlix. 7; Dr. C. W. Siemens, 32.

Transmission of water-power through high-pressure mains, to work water-power engines. Dr. C. W. Siemens, xlix. 33.

'Water-bar' for working deep mines, by Mr. Lang. M. Scott, xlix. 65.

Allenheads, water-pipes or conduits from mountain streams. W. G. Armstrong, ix. 378.

Hull Hydraulic Company, xlix. 2, 38; tariff, 5; cost of water delivered in the mains, 5, 43.

Paddington, Great Western railway station. H. Robinson, xlix. 8, 12.

Saarbrücken, 'water-bar' for working water-pressure engines at the Sulzbach Altenwald colliery, near. H. Pfaehler, xl. 294; xliii. 404;—H. Robinson, xlix. 13.

**HYDRAULIC MACHINERY—WATER-PRESSURE ENGINES:—**

Historical notice. J. Taylor, ii. (1843), 144.

Rotative engines with variable cut-off. H. Davey, xlix. 50.

Water-pressure blast-engines. W. Jones, lii. 363.

Water *versus* compressed air. B. Walker, xlix. 48;—Sir W. G. Armstrong, l. 78.

Water-pressure engines *versus* steam engines: J. Richardson, ix. 383, 385; W. G. Armstrong, 384; J. Glynn, 384; J. Walker, 385.

Hydraulic machinery—Water-pressure engines—*continued*.

- Water-pressure engines *versus* turbines. W. E. Rich, l. 92; Sir W. G. Armstrong, 98.
- rotative. Principles of action: W. G. Armstrong, ix. 379, 386. Four-cylinder hauling engine in South Hetton colliery, 378, 381. Two-cylinder and four-cylinder engines for winding and ore-crushing at lead mines, Allenheads: W. G. Armstrong, ix. 379, 380, 383; l. 72. Ordinary form of engine, with oscillating cylinders, l. 75.
- rotary. Sir W. G. Armstrong, l. 65.
- Water supply for water-pressure machines. Sir W. G. Armstrong, l. 87.
- Bakewell. Water-pressure engine, at lead mines, Bakewell, Derbyshire. J. Glynn, ix. 385.
- Chelsea. Water-pressure engine at Chelsea waterworks. J. Simpson, ix. 386; W. G. Armstrong, 386.
- Clausthal. New water-pressure pumping engine at Clausthal. O. R. Bernemann, xlv. 347.
- water-pressure engines. Hr. Fickler, liv. 342.
- Theoretical considerations on the Clausthal water-pressure engines. Hr. Hoppe, liv. 345.
- Freyberg. "Description of the water-pressure engine at Freyberg, Saxony." W. L. Baker, ii. (1843), 143.—Discussion: J. Taylor, ii. (1843), 144.
- Illsang. "Description of a water-pressure engine at Illsang, in Bavaria." W. L. Baker, ii. (1842), 55.
- Penrhyn, working three-throw pumps at slate mine. W. E. Rich, l. 93.
- Salzbach. Pumping engines with hydraulic rods [water bars] at the Salzbach-Altenwald Colliery, near Saarbrücken. H. Pfæhler, xl. 294; xliii. 404;—H. Robinson, xlix. 13.
- Sigmaringen Castle, application of water-pressure machinery to the new water-supply at. C. Kröber, lii. 378.
- Zurich. Portable water-pressure engines at Zurich, for cutting firewood. E. Matheson, xlix. 34.

## HYDRAULIC CRANES :—

- Application of the direct hydraulic lift or suspended cylinder to shears and cranes for lifting heavy weights. Sir W. G. Armstrong, xlv. 122.
- Coal discharging hydraulic cranes. Sir W. G. Armstrong, l. 81, 83.
- Cranes for railway stations, Sir W. G. Armstrong, l. 77.
- Direct hydraulic power *versus* chains for lifting heavy weights. Sir W. G. Armstrong, xlv. 122.
- Dock-cranes, power of, and consumption of water by. F. E. Duckham, l. 93; Sir W. G. Armstrong, 98.
- Forge and foundry hydraulic cranes. Sir W. G. Armstrong, l. 80; Col. Clay, 91.
- Hydraulic break for steam-crabs and cranes. W. Matthews, l. 100.
- ballast cranes, for delivery of ballast:—Tyne docks: T. E. Harrison, xviii. 503. South dock, Swansea: J. Abernethy, xxi. 317.
- capstans for railway stations. Sir W. G. Armstrong, l. 76.
- cranes *versus* hand-power cranes. W. T. Hendry, xxiv. 181.
- Sir W. G. Armstrong, l. 76. Means of varying the power, 78.
- Direct-acting crane at arsenal, Spezia, 79.
- power *versus* shafting, for working cranes at railway goods warehouses. J. O. Butler, xlix. 51.

**Hydraulic cranes—continued.**

Hydraulic *versus* steam-cranes. C. J. Appleby, xlix. 60. "

Movable hydraulic cranes. H. Robinson, xlix. 5, 57.—Sir W. G. Armstrong, l. 80; F. E. Duckham, 94. Use of counterweights, 94.

Principle of the action of hydraulic cranes. W. G. Armstrong, ix. 376.

Proposed traversing frame, with suspended hydraulic cylinder, for lifting heavy masses, in the construction of piers. M. Scott, xviii. 88; xlix. 65.

Dublin. Hydraulic crane at Dublin, by Mr. Bramah. R. H. Tweddell, l. 96.

Glasgow. Hydraulic crane at the general terminus, Glasgow. W. G. Armstrong, ix. 376, 382.

Newcastle. Hydraulic crane at railway goods station at Newcastle-upon-Tyne: W. G. Armstrong, ix. 376. At the quay, l. 68.

Spezia. Hydraulic crane at Spezia, with suspended hydraulic cylinder. H. Robinson, xlix. 5.

See *Hydraulic machinery*, for dock service (p. 117).

**HYDRAULIC HOISTS AND LIFTS:—**

Direct-acting hydraulic lift on shear-legs, by Mr. Murray, l. 96.

"Hydraulic apparatus for loading minerals from railway wagons into ships." (S.) W. H. Thomas, xlv. 217. (1 plate.)

— corn-warehousing machines. Sir W. G. Armstrong, l. 87.

— hoists: Sir W. G. Armstrong, l. 80. For loading ships with coal, 81, 83.

See *Coals*, shipment of.

— jigger, movable. Sir W. G. Armstrong, l. 80.

"— lift graving dock." E. Clark, xxv. 292, 347.

— sluice machines. Sir W. G. Armstrong, l. 84.

Hydro-pneumatic hoist: T. Wrightson, xlix. 44; H. Davey, 49; G. R. Stephenson, 59.

Returning the water for hydraulic hoists by steam power. W. E. Rich, xlix. 52.

Utilising the falling water in lifting machinery. Lieut.-Col. Clay, xlix. 36.

— the weight of the descending load. Col. Clay, l. 92; Sir W. G. Armstrong, 98.

"Anderton, hydraulic canal lift at, on the river Weaver." S. Duer, xlv. 107.

Goole, hydraulic coal-lift at. C. Wawn, xlix. 40.

Great Eastern railway, hydraulic wagon lifts: G. H. Phipps, l. 91. Wagon lift, Liverpool: Col. Clay, 92.

Liverpool, hydraulic hoist in warehouses, Albert docks. W. G. Armstrong, ix. 383.

Marseilles docks, hydraulic hoists for warehouses. T. Hawthorn, xxiv. 152, 162. Efficiency, 162.

Rotterdam, hydraulic hoist at. Sir J. G. N. Alleyne, xlii. 226.

St. Gothard tunnel, hydraulic hoist at the works of the. D. K. Clark, xlii. 238.

**HYDRAULIC PRESS:—**

Historical notice of applications of hydraulic press by Joseph Bramah. E. A. Cowper, xlix. 30.

Cylinders encased in wire coils. J. A. Longridge, xix. 319.

"Force exerted by hydraulic pressure in a Bramah press; the resisting power of the cylinder, and rules for computing the thickness of metal for presses of various powers and dimensions." P. Barlow, (T.) i. 133.

**Hydraulic press—continued.**

Formulas for the bursting strength of hydraulic presses. J. A. Longridge, xix. 341.

**HYDRAULIC PROPELLERS:—**

Advantages of the hydraulic propeller. A. Murray, C.B., xxix. 182; G. H. Phipps, 186.

Hydraulic propeller. A. Murray, C.B., xxxii. 57.

— for ships of war. H. Conybeare, xx. 460.

— on the Staffordshire canal. G. P. Bidder, xiii. 212;—G. H. Phipps, xxvi. 22; E. A. Cowper, 31.

Purkis's fan propeller, xiii. 378.

Ruthven's hydraulic propeller. "An account of the deep-sea fishing steamer, 'Enterprise,' with Ruthven's propeller." D. K. Clark, xiii. 370.

— 'Waterwitch' and 'Nautilus' Vice-Admiral Elliot, xxvi. 206, 207.— J. Grantham, xxix. 136; Admiral Sir E. Belcher, 176.

**HYDRAULIC RIVETERS**, by R. H. Tweddell. P. R. Allen, lii. 237.

**HYDRAULICS.** See *Water*.

**HYDROCARBONS.** See *Gas*, manufacture of—*Petroleum*, &c.

**HYDROGEN**, generation of, from steam. J. F. McGray, li. 67.

— as an explosive. W. K. Hall, xv. 282.

**HYDROGEOLOGY**: J. Lucas, xlvii. 70, 157; Prof. Ansted, 116; G. J. Symons, 151; R. Field, 161.

**ICE**, manufacture of. See *Cold* and *Refrigeration*.

— adhesion of, to timber piles. J. W. James, xli. 193, 194; table, 201.

**ICE BREAKING:—**

Blasting of ice, xlviii. 310.

"Description and drawing of the ice-boat." S. Ballard, i. (1838), 47.

Experiments on the removal of ice from canals by means of lithofracteur, dynamite, and gunpowder, xlix. 383.

"Method of breaking ice, by forcing it upwards instead of downwards: practised on the Herefordshire and Gloucestershire canal in the winters of 1834-35 and 1836." S. Ballard, i. (1837), 18.

Steam ice-breaker, Forth and Clyde navigation. J. Milne, xxvi. 10.

**ILLUMINATION**, artificial. See *Electric lamp*; *Electric light*; *Light*, artificial; *Lighthouse* illumination.

**INDIARUBBER**, moisture absorbed by. C. W. Siemens, xxi. 523.

**INDIARUBBER, VULCANISED:—**

As a cushion under rails and chairs. W. Brockedon, iv. 58. Resistance to impact, 59.

Decomposition of, in contact with brass or copper. T. B. Daft, xx. 90. In contact with oil. J. S. Russell, 434.

Duration under water: J. F. Bateman, xiii. 432; W. Brockedon, 432; Macintosh and Co., 433; J. T. Cooper, 434; D. Chadwick, 436.

**Indiarubber, vulcanised—continued.**

Elasticity. J. S. Russell, xiii. 434.

Experiments on deformation, with indiarubber models. Dr. E. Winkler, lvi. 293.

Porosity, xiii. 434.

**INDICATOR:—**

Bourdon's indicator, xi. 20.

Improvement on Watt's indicator. A. Mallet, xlv. 347.

Indicator card, Hulford's instrument for ascertaining from, the pressure on the piston of a steam engine, xii. 431.

Indicator by R. W. Fox: W. J. Henwood, (T.) ii. 49.—As applied to Cornish engines: J. Parkes, (T.) iii. 283.—Watt's indicator: J. Farey, ii. (1842), 109.—Indicator constructed by J. Penn: J. Farey, ii. (1842), 135.

"Results of a trial of the constant indicator upon a Cornish engine at the East London waterworks." Prof. Moseley, ii. (1842), 102.—Discussion: Prof. Moseley, ii. (1842), 103, 110, 114; W. Cowper, 107; T. Wicksteed, 107; J. Farey, 107, 118; J. Parkes, 110.

**INJECTOR:—**

"Giffard's injector." J. England, xxiv. 198. (2 plates.)—Discussion; J. Robinson, xxiv. 218, 225, 250; F. J. Bramwell, 219, 228; E. H. Thorman, 219; G. H. Phipps, 219, 222, 225; Sir W. G. Armstrong, C.B., 222, 240; C. W. Siemens, 222, 236; H. Maudslay, 226; J. C. Craven, 238; J. Hawkshaw, 238; Dr. Joule, 240; G. P. Bidder, 241, 244; Z. Colburn, 243; T. Hawksley, 244; J. S. Russell, 247; W. G. Beattie, 251; J. England, 254.

— Principle of its action. J. England, xxiv. 201, 254; tables of results of performance, 205 to 211; J. Robinson, 218, 225, 250; F. J. Bramwell, 219, 228; G. H. Phipps, 219, 225; table, 221; C. W. Siemens, 222, 236; Sir W. G. Armstrong, 240; Dr. Joule, 240; G. P. Bidder, 241; T. Hawksley, 244; J. S. Russell, 247.

— Theoretical efficiency. C. W. Siemens, xxiv. 238.

— Formulas for the action. J. England, xxiv. 205, 207; G. H. Phipps, 221; T. Hawksley, 244.

— *versus* Beattie's and other feed-pumps:—J. England, xxiv. 212; C. W. Siemens, 225, 238; H. Maudslay, 226; F. J. Bramwell, 235; J. C. Craven, 238; W. G. Beattie, 251.

Körting's universal hot-water injector for locomotives, xlix. 314.

Theory of the injector. E. Hermann, lv. 402.

**INSTITUTION OF CIVIL ENGINEERS (The). Historical notice, (T.)**

i. p. xx.; iv. 8;—J. Fowler, xxv. 223;—C. H. Gregory, xxvii. 181;—C. B. Vignoles, xxix. 272.

Addresses of Presidents. See *Addresses*.

Charter of Incorporation, (T.) i. 321. Extract showing the objects of the Institution, xxix. 215.

Regulations, (T.) i. 299.

**INSTRUMENTS:—**

Accelerometer and accelerograph, xl. 355, 356.

Anemometer, viii. 137; xii. 300; xlvii. 406.

**Instruments—continued.**

- Balance, automaton, ii. (1843) 121.  
 Barometer, viii. 141; xi. 23; xxi. 32; xliii. 320; l. 222.  
 Calorimeter, lii. 171.  
 Clinometer, v. 480; xi. 23.  
 Dynamometer, i. (1840) 52; ii. (1842) 102; v. 281; l. 193; lii. 54; liii. 342.  
 Electrometer, xli. 340; xliii. 437.  
 Fluviograph, liv. 297; lvii. 351.  
 Galvanometer, xx. 39; l. 307; lv. 429; lvii. 414.  
 Manometer, xi. 14; xlviii. 340.  
 Microphone, lv. 437.  
 Microtasimeter, liv. 393.  
 Nyctoscope, xix. 421.  
 Oscillograph, lviii. 436.  
 Phonograph, liii. 392.  
 Photometer, i. (1841), 101; xlvii. 42; lii. 71, 77, 406.  
 Polymeter, lvi. 312.  
 Pyrometer, xliii. 402, 407; lviii. 433.  
 Radiometer, xlv. 164, 167, 169, 173.  
 Salinometer, xii. 509, 513.  
 Telephone, lii. 396; liii. 393, 395; liv. 396; lv. 435, 436; lvii. 420; lviii. 428.  
 Telescope, i. (1841) 96; xxi. 34.  
 Theodolite, i. (1841) 96; xv. 247.  
 Thermometer, xx. 58; xxi. 520; liv. 393.

**IRON, expansion of. See Expansion.**

— magnetic impenetrability of. J. Jamin, lviii. 405.

— strength of. See *Strength of materials.*

**IRON, CAST :—**

- Absorption of gases by iron and steel. MM. Troost and Hautesfeuille, xlv. 320.  
 Cast-iron in architecture. Sir J. Rennie, v. 110.  
 Casting in iron moulds. C. May, xi. 426.  
 Density of cast-iron increased under a head of metal. R. Mallet, i. (1840), 75.  
 Determination of carbon in iron and steel. A. C. McCreath, l. 271.  
 Expansion of cast-iron. G. Rennie, (T.) iii. 215. See *Expansion and Contraction of large iron structures.*  
 Gases enclosed in iron and steel. F. C. G. Müller, lvi. 360.  
 Hot-blast *versus* cold-blast iron. J. Farey, iii. 306;—J. T. Cooper, iv. 219; J. Farey, 220.  
 Iron and manganese, carburets and silicates of, calorimetric study of. MM. Troost and Hautesfeuille, xliii. 413.  
 Limit of the carburization of iron. M. Boussingault, xli. 319.  
 Stirling's metal (toughened cast-iron), manufacture of. M. Stirling, xi. 238;—H. Maudslay, xviii. 359; F. J. Bramwell, 860; R. Stephenson, 361.

**IRON, CAST, CORROSION AND SOFTENING OF, IN SEA WATER, &c. :—**

“Action of air and water, whether fresh or salt, clear or foul, and at various temperatures, upon cast and wrought iron and steel.” R. Mallet, ii. (1843), 171.

Iron, cast, corrosion and softening of, in sea water, &c.—*continued.*

- "Analysis of a piece of the iron heel-post converted by the action of sea water into a substance resembling plumbago." D. Mushet, i. (1840), 3.  
 Composition of iron softened in sea water, by Prof. Brande, iii. 87; vii. 157.  
 "Corrosion of cast and wrought iron in water." R. Mallet, i. (1840), 70.  
 "Corrosion of metals." R. Adie, iv. 323.—Discussion: see *Metals*, corrosion of.  
 Durability of cast iron in sea water. J. Walker, vii. 157.  
 — of cast-iron piles in tidal rivers. R. Mallet, i. (1840), 71.  
 Honeycombing of cast-iron guns by gunpowder. J. G. C. Curtis-Godsmen, xxxv. 5.  
 Softening of cast iron in mines.—J. Taylor, ii. (1842), 154. In mine water, Pump-trees: G. Cottam, iii. 86;—J. Taylor, vii. 158. In coal mines, by sulphuric acid, from pyrites: J. Glynn, vii. 158. In breweries: R. Davison, ii. (1842), 154; vii. 158. In vinegar and pyroigneous acid: J. Taylor, vii. 158.  
 — in sea water: M. A. Borthwick, (T.) i. 203;—Prof. Brande, ii. (1842), 153. Screw-propeller of the 'Napoléon': C. Perkins, iii. 85; J. Grantham, 85. Wreck of the 'Royal George': Maj.-Gen. Pasley, iii. 86; G. Cottam, 86. Cast-iron guns: Sir J. Rennie, iv. 333.—Prof. Brande, vii. 157;—E. Clark, xxvii. 560.  
 — in steam-engine cylinders: J. Farey, ii. (1842), 153; P. Taylor, 153.—Iron in contact with gun-metal in steam-cylinders: J. Farey, vii. 157; P. Taylor, 158; J. Taylor, 158.  
 — cast-iron pipes in soil impregnated by muriate. T. Duncan, xii. 487.

IRON, cast, preservation of, by a coating of tar and asphalt. J. Brunlees, xxvii. 575.

IRON, FIG:—

- Analyses of Hematite pig-iron. W. Hackney, xlii. 50.  
 — of American pig-iron, by W. C. Gunn. C. D. Fox, xxxix. 120.  
 — of pig-iron of the Styrian Iron Company. M. Jaritz, xliii. 408.  
 — of Spiegeleisen. W. Hackney, xlii. 51.  
 Dephosphoration of iron. K. List, lviii. 404.  
 "Experiments on the strength of cast iron smelted with purified coke." W. Fairbairn, xii. 360.—Discussion on the two preceding papers: see *Strength of materials*—Cast iron (p. 318).  
 "Increased strength of cast-iron produced by the use of improved coke." F. C. Calvert, xii. 352.  
 Manufacture of manganiferous and phosphoric pig-irons, and their subsequent conversion into fine-grained wrought iron in Belgium. H. Le Chatelier, xl. 335.  
 — of white forge pig-iron from the oolitic iron ores of Luxemburg. J. Wolters, xlviii. 352.  
 Quality and properties of Hungarian pig-iron. A. von Kerpely, i. 274.  
 Removal of carbon, silicon, and phosphorus from pig iron by alkaline carbonates. Dr. T. M. Brown, lvi. 353.  
 Some recent experiments on the dephosphorisation of pig-iron. L. Grüner, lvi. 354.  
 Treatment of pig and phosphorated iron for the production of cast steel for rails and other purposes. M. Lencauchez, xl. 336.



**IRON, WROUGHT:—**

Classification of iron and steel. Dr. Rohrig, liv. 369.

Different qualities of iron and steel (analyses). C. Grauhan, lii. 256.

Effect of vibration on the structure of iron. J. Taylor, ii. (1843), 93;  
W. Gravatt, 93; J. Walker, 94.

Homogeneous metal, definition of, xlii. 3.

Proposed general classification of iron and steel, lii. 358.

"Some peculiar changes in the internal structure of iron, independent of and subsequent to the several processes of its manufacture." C. Hood, ii. (1842), 180.—Discussion: R. Moreland, ii. (1842), 181; E. Woods, 181; C. Hood, 181, 182; J. O. York, 181, 182; G. Lowe, 182; J. Miller, 182.

Structure of massive forgings. R. Mallet, xviii. 302, 306; H. Maudslay, 339. Rents in massive forgings: R. Mallet, xviii. 307, 346; W. Clay, 333, 340; H. Maudslay, 340; C. May, 340;—J. Anderson, xix. 358.

**IRON, WROUGHT, CORROSION OF:—**

Corrosion of wrought iron in water. R. Mallet, i. (1840), 70; ii. (1843), 171.

— by sea water in the 'Royal George.' Maj.-Gen. Pasley, iii. 86.

— by oxidation. "On water for locomotive engines, and its chemical analysis." W. West, v. 182.

— of chain cables at the bottom of the sea. Admiral Fitzroy, xx. 61.

— of iron wires in sea water. C. F. Varley, xxv. 35.

— of iron bolts under water. Major J. Browne, R.E., xxxiv. 35; B. Leslie, 139.

— of wrought iron, by juices of wood. J. Bethell, xii. 229.

— of iron in sea water. J. W. Grover, xxviii. 228; N. Beardmore, 228; R. Mallet, 229; J. B. Redman, 230; J. Brunlees, 230.

— of wrought iron imbedded in concrete. J. Jennings, xxii. 445; D. Miller, 449.

Influence of various solutions upon iron. Prof. A. Wagner, xliii. 411.

Oxidation of iron in making water gas. G. Lowe, i. (1838), 46.

See *Steam-boilers*—Corrosion.

**IRON, WROUGHT, EXPANSION OF:—**

Expansion of wrought iron by heat. G. Rennie, (T.) iii. 218.

See *Expansion* and contraction of large iron structures.

**IRON, WROUGHT, MANUFACTURE OF:—**

Case-hardening iron, i. (1839), 30.

Casting of chilled gearing for roll trains. E. Laduron, lv. 405.

"Description of the machinery and the several processes for converting refined metal into malleable finished iron at the Rhymney works." J. Richards, i. (1839), 49.

"— of the mill, forge, and furnaces of a Welsh ironworks." T. G. Hardie, ii. (1842), 60.—Discussion: G. Lowe, ii. (1842), 61; Dr. M. Faraday, 61; J. Wallace, 61; J. Taylor, 62.

"— of Mr. Clay's process for making wrought iron direct from the ore; as practised at the Shirva works, Kirkintilloch, Scotland." W. N. Clay, ii. (1843), 82. At the Backbarrow charcoal furnaces, iii. 235.

Henderson process of manufacture. R. Aitken, xlii. 108.

Inquiries into the texture of iron. M. Janoyer, xxxix. 419.

"Manufacture of malleable iron, with the results of experiments on the strength of railway axles." G. B. Thorneycroft, ix. 294. (1 plate).—

**Iron, wrought, manufacture of—continued.**

Discussion : G. B. Thorneycroft, ix. 300, 302 ; J. Gibson, 301 ; A. Beattie, 301 ; J. Freeman, 302.

“Manufacture of malleable iron and steel.” H. Bessemer, xviii. 525.—Discussion : J. Locke, xviii. 547 ; J. F. Bramwell, 547 ; H. Bessemer, 548, 553 ; T. Brown, 549 ; T. M. Gladstone, 550 ; Col. E. Wilmot, R.A., 550 ; E. A. Cowper, 552 ; E. Riley, 552.

— of iron in Sweden. C. P. Sandberg, xxxix. 202.

Method of rolling bars for suspension bridges and other similar purposes. T. Howard, viii. 273.

Mills for rolling rails and plates. W. Hackney, xlii. 40, 121 ; B. Walker, 85 ; E. Williams, 87 ; R. Price Williams, 88.

Rationale of the puddling process. H. Bessemer, xviii. 526.

See *Furnaces*.

**IRON, WROUGHT, PRESERVATION OF :—**

“Application of zinc by the process of electro-deposition, for the preservation of iron, as applied to engineering and other purposes.” F. Pellatt, ii. (1843), 167.

Conditions of durability of iron : E. Clark, xxvii. 559. Wrought-iron rails, girders, roofs, 559.

Durability of iron plates in Russia. N. Beardmore, xxvii. 570 ; E. Clark, 577.

— of galvanised iron. Ceylon. W. J. W. Heath, xxiv. 17.

Galvanising iron, process of. C. May, xiv. 266.

Preservation of bar iron in nitric acid. G. Farren, xxvii. 567.

— of iron in lead : E. Cottam, i. (1839), 83. In cement : J. Simpson, 37.

— of iron under water, by paint : R. Mallet, i. (1840), 72. By metallic protectors, 73.

— of iron by paint. E. Clark, xxvii. 559.

Protection of iron by attachments of zinc : Dock-gates, Montrose. J. Lealie, iii. 253.

Waste and preservation of iron in tropical climates. G. O. Mann, xxiv. 5, 10 ; W. J. W. Heath, 16 ; G. Berkley, 18 ; J. Hawkshaw, 19 ; J. Brunlees, 21 ; C. H. Gregory, 25, 26 ; C. B. Lane, 27 ; J. M. Heppel, 37 ;— J. Brunlees, xxvii. 575.

Zinked wrought-iron scupper nails for the protection of piles. Sir C. Fox, xiv. 266.

**IRON ORES :—**

Dephosphorisation of iron ores, by Jacobi's process. By M. Gautier, xlii. 366.

Practical metallurgy of Titanic iron ores. W. M. Bowron, lvi. 355.

Algeria. Iron-bearing district of the Ouelhassa, Algeria. M. Pouyanne, xlv. 337.

Belgium. Relative value of Belgian and other iron ores. A. Habets, lii. 355.

England. Analyses of English and foreign ores. W. Hackney, xlii. 59.

— Iron ore near Middlesbrough-on-Tees, xi. 28.

Germany. Oolitic iron ores of German Lothringen. E. Gresler, xlii. 358.

India. “Some account of the recently discovered deposits of iron ore at the foot of the Himalayas, in Kumaon, Northern India.” W. Sowerby, xvi. 82.

Iron ores—*continued*.

Spain. "Works of the Bilbao Iron Ore Company, in the province of Biscay, Spain." (S.) (2 plates.) F. C. Barron, li. 237.

— Analysis of Galdames ore, Bilbao Iron Ore Company. F. C. Barron, li. 247.

— Analysis of Spanish iron ores. F. C. Barron, li. 247, 248.

Turkey. "Experimental researches into the properties of the iron ores of Samakoff, in Turkey, and of the hæmatite ores of Cumberland, with a view to determine the best means of reducing them into the cast and malleable states; and on the relative strength and other properties of cast iron from the Turkish and other hæmatite ores." W. Fairbairn, iii. 225.

— Discussion: F. Braithwaite, iii. 245; C. B. Vignoles, 245; R. Phillips, 245; J. Taylor, 245; A. Slate, 245; Mr. Durham, 247.

— W. N. Clay's report on the iron ore of Samakoff, iii. 230.

— Strength of cast iron from the Turkish and hæmatite ores. E. Hodgkinson, iii. 240.

IRON OXIDE. Action of iron oxide on cement. R. Beamish, i. (1837) 33.

IRON SMELTING. See *Blast Furnaces*.

## IRON WORKS:—

Bosnia. Iron industry of. B. Helmhacker, lvii. 385.

Domnarfvet ironworks. C. Wittenstrom, lvii. 387.

## IRRIGATION:—

Circulation of water through soil. B. Latham, xxxv. 172, 174.

Irrigation duty of water, memorandum on the, and the principle on which its increase depends. J. S. Beresford, xlviii. 319.

Irrigation of lowlands by the drainage of uplands. R. Rawlinson, xxi. 99.

"Keeping irrigation canals clear of silt." (S.) R. B. Buckley, lviii. 278.

Algeria: Irrigation of the plain of Habra. L. Pochet, xli. 247.

Italy, &c. Water consumed by irrigation canals in France, Spain and Italy. J. D. Barry, xxvii. 519, 520.

— Statistics of irrigation, and irrigation canals, in India, Spain, and Italy. J. T. Harrison, xxvii. 542.

— Hydraulic works of Northern Italy. R. B. Grantham, xix. 82.

Marchfeld, irrigation of the. E. von Podhagsky, l. 233.

Majorca, irrigation of the Albufera of Alcudia. H. R. Waring, lii. 244.

Nottinghamshire, irrigation, Welbeck. Sir J. Rennie, xix. 99.

See *Canals*; *Sewage Irrigation*.

## IRRIGATION—FRANCE:—

Irrigation in the south of France. G. Rennie, xiv. 190; R. W. Mylne, 214.

— (Drôme, Isère, Vaucluse). G. Dumont, lviii. 387.

Bouches-du-Rhône. On the irrigation in the department of. J. A. Barral, xlv. 308.

— "Irrigation in the south of France." (S.) (2 plates.) G. Wilson, li. 213.

Forez, irrigation of Plain of. liv. 304.

Haute-Garonne irrigation works. M. Tranié, xlii. 276.

Toulouse, irrigation of the Plain of. C. Boissay, lvi. 341.

## IRRIGATION—INDIA:—

- Adaptation of large rivers for purposes of irrigation: R. B. Grantham, xix. 80. Tanks in the Madras Presidency, 81.
- "Benefits of irrigation in India and on the proper construction of irrigation canals." T. Login, xxvii. 471. (1 plate.)—Discussion: see G. Higgins's Paper on "Irrigation in Spain."
- "Irrigation in India." A. Wilson, xxvii. 454. (1 plate.)—Discussion: see G. Higgins's Paper on "Irrigation in Spain."
- Tanks for irrigation in India. A. Wilson, xxvii. 456.
- "Practice and results of irrigation in Northern India." Colonel W. H. Greathed, C.B., R.E. xxxv. 139. (1 plate.)—Discussion: Col. W. H. Greathed, xxxv. 165, 166, 167; J. F. Bateman, 165; C. B. Vignoles, 166; W. H. Barlow, 167; J. Brunlees, 168; J. B. Redman, 168; G. B. Bruce, 170; B. Latham, 171; W. Shelford, 175; J. G. C. Curtis-Godsmen, 175, 182; Col. Medley, R.E., 178; G. B. Bruce, 180; Col. Smith, 184; R. Aitken, 185; T. Hawksley, 185.
- Profits of irrigation works in India. Sir A. Cotton, xxvii. 511, 533; Gen. Balfour, 525; J. Dickinson, 526; R. P. Brereton, 537; N. Beardmore, 537;—Sir A. Cotton, xxxiv. 89; G. H. Phipps, 97; R. Aitken, 102; R. E. Forrest, 106; J. H. Latham, 103;—Sir G. Campbell, xxxix. 50; Gen. F. Cotton, 51.
- "Value of water, and its storage and distribution in Southern India." G. Gordon, xxxiii. 376. (1 plate.)—Discussion: J. H. Latham, xxxiii. 401; Col. J. T. Smith, 403; R. Aitken, 409; J. Aird, Jun., 410; A. Jacob, 411; G. W. Hemans, 411; H. Conybeare, 412; F. C. Danvers, 416; Major J. Browne, R.E., 419; G. Gordon, 422; A. A. West, 427; F. D. Campbell, 428.
- Wells *versus* canals in India. Maj.-Gen. G. B. Tremenneheere, xvii. 495, 497.

Bengal Presidency, irrigation in: Maj.-Gen. G. B. Tremenneheere, xvii. 485. Tanks, 485, 497. Irrigation canals, xvii. 489. Jumna canals, 489, 492. Ganges canal, 492; H. Conybeare, 518. Punjab canals: Maj.-Gen. G. B. Tremenneheere, 497.

"Ceylon, irrigation in." (S.) H. Byrne, lvii. 231.

Rajpootana, tanks in, by Col. Dixon: H. Conybeare, xvii. 569. Cost of impounding water in Rajpootana, xxxiii. 415.

"Soonkésala canal of the Madras Irrigation and Canal Company." J. H. Latham, xxxiv. 67. (3 plates.)—Discussion: Gen. Strachey, R.E., xxxiv. 89; Sir A. Cotton, 89; J. F. Bateman, 92, 101; R. C. Reid, 94; A. J. Dodson, 96; G. H. Phipps, 97, 98; G. B. Bruce, 98; Lt.-Col. J. G. Medley, R.E., 99, 106; J. B. Redman, 101; R. Aitken, 101; R. Rawlinson, C.B., 103; N. Beardmore, 106; R. E. Forrest, 106; J. H. Latham, 107.

## IRRIGATION—SPAIN:—

Alicante, irrigation works of. M. Aymard, xlv. 309.

Henares canal; results of irrigation of a farm near Azuqueca: W. Atkinson, xlix. 188.

"Irrigation in Spain; chiefly in reference to the construction of the Henares and the Esla canals in that country." G. Higgin, xxvii. 483. (3 plates.)—Discussion on this and the two papers by A. Wilson and T. Login on Irrigation in India: T. Login, xxvii. 508, 545; Sir A. Cotton, 511, 533; J. F. Bateman, 512; Col. Sir W. Denison, 515; J. D. Barry, 517; G. Kilgour, 522; Capt. W. R. Johnson, 523; J. Jones, 524; C. B. Vignoles,

**Irrigation—Spain—continued.**

525; Gen. Balfour, 525; J. Dickinson, 526; Lieut. C. C. S. Moncrieff, R.E., 532; R. P. Brereton, 537; J. A. Longridge, 537; N. Beardmore, 537; J. Hawkshaw, 539; J. T. Harrison, 539; A. Wilson, 546; W. H. Delano, 548; G. H. Phipps, 548; E. B. Webb, 551; W. Atkinson, 552.

Legislation on waters for irrigation. J. D. Barry, xxvii. 517.

Murcia and Albacete, irrigation in the provinces of. F. de Botella, xlv. 311.

**IRRIGATION**, Measuring water for. See *Water*, measures of.

**IRRIGATION**, Sewage. See *Sewage Irrigation*.

**JARROW SLAKE**. T. E. Harrison, xviii. 490, 517.

**JETTIES:—**

Fiume. Jetties made of concrete, Fiume. J. Brunlees, xxxii. 80.

London. Jetties at Victoria (London) docks. W. J. Kingsbury, xviii. 446, 466; J. Abernethy, 477; A. Giles, 479; G. P. Bidder, 485, 486.

Mississippi Jetties. J. B. Eads, xlvii. 369.

— The South Pass jetties. E. L. Corthell, lv. 367.

Rotterdam. "On the construction of the sea jetties for the improvement of the navigation from Rotterdam to the sea." (S.) T. C. Watson, xli. 169.

Silloth. Jetty at Silloth harbour. J. Abernethy, xxi. 326.

Tyne. Shipping jetties, Tyne docks. T. E. Harrison, xviii, 499, 500.

**KAOLIN**. See *Pottery*.

**KILNS**, tunnel, for burning pottery and tiles, xlii. 338.

**LABOUR, MANUAL:—**

Convict labour. A. J. Robertson, xviii. 110; J. Coode, 110, 128; G. P. Bidder, 125, 128.

"Experiments on the power of men (with winches as applied to cranes)." J. Field, (T.) ii. 211.

Manual labour. Chili: W. Lloyd, xxiii. 377. Egypt: T. Sopwith, xvii. 53.

India: J. J. Berkley, xix. 604, 608. India; Scinde, Cutch: J. Brunton,

xxii. 455, 456, 466. Brazil: E. B. Webb, xix. 243, 244, 248, 249, 260;

G. B. Bruce, 258; E. Hopkins, 259;—W. M. Peniston, xxii. 398, 407;

C. B. Lane, 411; J. T. Wood, 412. Portugal: G. L. Molesworth, xviii.

18; J. S. Valentine, 21. Spain: G. Higgin, xxvii. 497. Calcutta: B.

Leslie, liii. 25. Japanese workmen: W. F. Potter, lvi. 8. Sandhurst,

Victoria: J. Brady, lvi. 141, 146.

— on Sirhind canal. J. D. Derry, xli. 234.

— *versus* machine labour. H. Robinson, xlix. 21, 51.

— Comparative cost, manual labour and steam power, in excavation, xli. 234.

Work at a winch, by manual labour, in moving Sunderland lighthouse. J. Murray, iii. 351.

**LABOUR, MANUAL, CONSTANTS OF:—**

Blasting red sandstone. C. B. Lane, xi. 74.

Bricklaying: G. B. Bruce, x. 226; C. B. Lane, xi. 76.

Constants of labour at a piling engine: G. B. Bruce, x. 224.

**Labour, manual, constants of—continued.**

Cranage: G. B. Bruce, x. 225, 226; tipping, 230.

Filling sand into wagons. J. Jackson, xxxvii. 90.

Lifting:—Horse-run lift (men and horses), 79. (Men) swing lift, 80; box-lift, 80; hodmen, 81.

Raising loads. M. Poncelet, xi. 82.

Work of a man raising bricks. P. Journet, iii. 221, 222; T. Grissell, 222.

**LAGOONS AND MARSHES:—**

Holstein, marshes in. J. Paton, xxi. 429, 487. G. W. Hemans, 482; Prof. Forchhammer, 483; G. P. Bidder, 485.

"Ireland. Lagoons on the south-east coast of." (S.) G. H. Kinahan, xlv. 204. (1 plate.)

Italy. Diversion of the Brenta from the lagoon of Chioggia. R. Pareto, l. 210.

— Hydrographic changes in,—the Venetian lagoons. A. Foschini, lvii. 361.

Jarrow slake. T. E. Harrison, xviii. 490, 517.

Mediterranean. "Lagoons and marshes of certain parts of the shores of the."

D. T. Ansted, xxviii. 287. (3 plates.)—Discussion: Prof. Ansted, xxviii. 307, 322; J. F. Bateman, 307; R. Mallet, 311; J. T. Harrison, 315; J. Hawkshaw, 317; W. Pole, 317; J. B. Redman, 321; A. Giles, 322; C. H. Gregory, 323.

Zuyder Zee and the Biss Bosch, formerly marsh land. J. H. Muller, xxi. 489. Drainage. See *Drainage of Land*.

See *Drainage of Land*; *Reclamation of Land*.

**LAKES:—**

Bitter Lakes of the Isthmus of Suez. F. de Lesseps, xlv. 314.

Lake Fucino; no visible outlet. W. Parkes, xxvii. 244.

— dredging machine used in the works for the drainage of. S. Brisse, xlix. 342.

Note on variations in the level of lakes. M. Dausse, xl. 302.

See *Lagoons and marshes*.

**LAMPS. See *Electric lamp*; *Light, artificial*; *Lighthouse*.**

— Safety. See *Coal mines*, lighting.

**LAND (Cultivated). See *Agriculture*.**

— drainage of. See *Drainage of Land*.

— reclamation of. See *Reclamation of Land*.

**LAND-SLIPS:—**

Physical causes of landslips: J. Gaudard, xxxix. 223. Restoring cuttings after landslips, 236. Repair of fallen embankments, 244.

Remedies against landslips. L. Torelli, xliii. 333.

Works undertaken for repairing landslips. M. Comoy, xlii. 268.

Ashley. "Account of the landslip in Ashley cutting on the line of the Great Western railway." J. G. Thomson, iii. 129.

Horgen. Landslip at the Horgen Station, near Zurich, xliii. 333.

**Landslips—**

Spurn Point. Landslips on the English coast, between Spurn Point and Flamborough Head. R. Pickwell, li. 191.

Undercliff. "Earthfalls at the Undercliff in the Isle of Wight." W. Rickman, i. (1840), 35.—Discussion: J. Walker, i. (1840), 36; G. Lowe, 36.

See *Railway cuttings* and *embankments*.

**LANDING STAGES:—**

Birkenhead. "The design and construction of the south reserve piers and floating landing stage at Birkenhead." (S.) C. Graham Smith, l. 164. (1 plate.)

New Ferry and New Brighton. "Description of the New Ferry and New Brighton piers and landing stages on the river Mersey, near Liverpool." H. Hooper, xxviii. 217.

Thames. Landing stages on the Thames embankment. J. W. Bazalgette, xxvii. 227; N. Beardmore, 228.

**LATHES.** See *Machine tools*.

**LEAD.** Action of lead on soft water: W. Atkinson, xxv. 500; J. F. Bateman, 500; S. O. Homersham, 503.

"Autogenous uniting of lead and other metals." M. Delbruick, i. (1840), 27. Experiments on lead and other soft bodies. Prof. Kick, l. 188.

Picking table, continuous, at the Stefani dressing floor at Příbram. C. R. v. Baumgarten, xlii. 357.

Smelting works of the Mechernich Mining Company at Mechernich, in Rhenish Prussia. H. Jäger, xli. 314.

**LEAD ORES:—**

Desilverising works at Newark, New Jersey. Hr. Koch, lviii. 407.

"Dressing of lead ores." T. Sopwith, Jun., xxx. 106.—Discussion: Warrington Smyth, xxx. 124; J. Taylor, 126; J. L. Thomas, 128; T. B. Jordan, 131; Capt. R. H. Williams, 131; T. Sopwith, Jun., 133.

Metallurgical treatment of ores at Freiberg (lead, &c.). L. Grand, xlii. 345.

Smelting lead ore. H. Bräuning, lii. 350.

**LEAD PIPES:—**

Machine for joining lead and other pipes. C. W. Siemens, xviii. 405.

Weight of lead pipes, Liverpool Corporation Waterworks, xlii. 165.

**LEGISLATION AND GOVERNMENT CONTROL:—**

Clyde. Legislation, xxxvi. 139.

Drainage. Legislation on drainage of land. See *Drainage of land*.

— Central administration, for drainage of towns. E. Chadwick, xxiv. 331.

— Legislation on drainage of towns. G. P. Bidder, xxiv. 350.

Explosive agents, legislation relating to. Major Majendie, xxxv. 19; O. Webb, 24; F. A. Abel, 32.

General Board of Health; Metropolitan Commissioners of Sewers. G. P. Bidder, xiv. 289; T. Hawksley, 290, 291.

Government control. Sir J. Rennie, vi. 28; vii. 30;—G. P. Bidder, xix. 227.

Irrigation. Legislation on waters for irrigation in Spain. J. D. Barry, xxvii. 517.

Legislative interference. J. S. Russell, ix. 181; C. Manby, 276.

Locomotives, legislation on road, xxxvi. 72.

**Legislation and government control—continued.**

Thames, legislation on the. H. Robinson, xv. 197; G. P. Bidder, 237.

Water rights, discussion on, xx. 250.

Water supply, legislation on, by meter, xxxi. 58, 59.

See *Coal mines*, legislation; *Railway legislation* and government inspection;  
*Ships, steam*, government inspection of.

**LENGTH.** Measuring machine for determining minute differences of length,  
by J. Whitworth, x. 325.

— standards of. See *Measures*, weights and money.

**LEVELLING.** See *Surveying* and levelling.

**LEWIS :—**

"Drawing and description of a new lewis." H. Robertson, i. (1837), 26.

Lewis for lifting heavy stones. J. Bremner, iii. 126.

**LEYDEN JARS**, application of, to electric lighting. Jablochhoff, lii. 405.

**LIFTS.** See *Hoists* and lifts.

**LIGHT.** Influence of heat and light on the electrical conductivity of selenium  
and some metals. W. Siemens and G. Hausemann, lii. 400.

— Influence of light on conductivity of crystalline selenium. W. Siemens,  
xliii. 437.

—, intensity of. Law of intensity. J. T. Chance, xxvi. 482. Prof. Crookes'  
radiometer, xliv. 164, 167, 169, 173.

**LIGHT AND ELECTRICITY**, relation of. Prof. W. G. Adams, xliv. 169.

**LIGHT, ARTIFICIAL :—**

Benzole light. C. B. Mansfield, viii. 217.

Candle, air required to support combustion of a. J. Richardson, xii. 276.

Lamp-burners, description of a mode of obtaining perfect ventilation of.  
J. Faraday, ii. (1843), 184.

Lighting of towns. M. Darcel, liv. 381.

Munich. Cost of the different modes of lighting the town of Munich. F.  
Erismann, liv. 380.

Oil, candles. "Experimental researches upon the cost of the light afforded  
by different lamps and candles." A. Ure, i. (1839), 75.

Oils. Standards for testing oils used in the Japan sea lights. R. H.  
Brunton, xlvii. 34.

Photometer. "Description of a new universal photometer." Dr. C.  
Schafhaeutl, i. (1841), 101.

— (Selenium photometer): gas and electricity, lii. 406.

Standard unit of illuminating power. W. Sugg, lvii. 144; J. N. Douglass,  
145, 161; W. H. Preece, 153.

See *Coal mines*, lighting of; *Gas light*; *Electric light*; *Lighthouses*,  
illumination.

**LIGHTHOUSES :—**

Historical notice. J. N. Douglass, lvii. 77, 92, 163; S. A. Varley, 157.

Aberdeen. Notice of lighthouse tower on the new south breakwater.  
W. D. Cay, xxxix. 136.



## Lighthouses—continued.

Ar-Men, liv. 307.

Bell Rock. Movable beam crane. R. Stevenson, iv. 339.

— Balance crane. R. Stevenson, iv. 342.

Bishop Rock. W. Cubitt, V.P., ix. 138;—E. A. Cowper, xxiii. 28; J. G. C. Curtis, 33.

Dadalus lighthouse, Red Sea. W. Parkes, xxiii. 2, 5, 10, 11, 18.

“Dhu Heartach Lighthouse.” D. A. Stevenson, xvi. 1. (2 plates.)—Discussion: J. N. Douglass, xvi. 14; J. A. Longridge, 16; J. B. Redman, 16; F. J. Bramwell, 18; D. A. Stevenson, 18.

Eddystone: Bursting of doors by unequal atmospheric pressure. J. Walker, i. (1841), 115.

— Composition of cement. Col. Pasley, i. (1837), 19.

— Rudyerd's lighthouse. J. W. Gordon, ix. 189.

— Note on the. (S.) J. N. Douglass, liii. 247.

— undermined. J. F. Bateman, lii. 20.

— New lighthouse. J. N. Douglass, liii. 248.

Gibbs Hill, Bermuda. “An account of the cast-iron lighthouse tower on Gibbs Hill, in the Bermudas.” P. Paterson, ix. 182. (1 plate.)—Discussion: A. Gordon, ix. 186, 189; Sir J. Rennie, 189; M. A. Borthwick, 189; J. Walker, 189, 194; J. S. Russell, 193; Gen. Pasley, 194.

“Great Basses Lighthouse, Ceylon.” W. Douglass, xxxviii. 50. (5 plates.)—Discussion: M. Beazeley, xxxviii. 62; J. B. Redman, 64; Admiral Collinson, 64; H. Shearer, 64; J. N. Douglass, 65.

Greenore lighthouse. J. Barton, xlv. 135.

“Japan Lights.” R. H. Brunton, xlvii. 1. (2 plates.)—Discussion: Messrs. Stevenson, xlvii. 26; J. N. Douglass, 29; W. Lloyd, 30; Dr. W. Pole, 31; J. Abernethy, 32; E. Woods, 32; W. H. Beaumont, 33; R. H. Brunton, 33; W. D. Cay, 37; J. J. Coleman, 37.

— Experimental lighthouse at Japan. R. H. Brunton, xlvii. 18.

— Mikomoto (Rock Island) lighthouse. R. H. Brunton, xlvii. 10; Yebo-sushima lighthouse, 11; Satanomisaki lighthouse, 12. Standard flames for testing oils used, 34.

— Lighthouses, lightships, buoys, and beacons, on the coast of Japan: tables. R. H. Brunton, xlvii. 22 to 25; J. N. Douglass, 29.

— revolving apparatus. T. Stevenson, lvii. 119.

Lizard lighthouses. J. N. Douglass, lvii. 91, 161; Admiral Sir R. Collinson, 151; condensing power, 182.

Menai Strait. “Description of the Menai lighthouse.” D. P. Hewett, ii. (1842), 122.

Odessa lighthouse and apparent light. D. M. Henderson, xxviii. 31.

Red Sea. “Description of lighthouses lately erected in the Red Sea.” W. Parkes, xxiii. 1. (1 plate.)—Discussion: W. Parkes, xxiii. 24, 26, 30, 36; A. Gordon, 24, 28, 36; C. B. Vignoles, 26, 27, 36; Capt. Arrow, 27; E. A. Cowper, 28; A. Bower, 28; Admiral Sir E. Belcher, 29; J. N. Douglass, 29; J. H. Porter, 29; G. W. Hemans, 30; J. G. C. Curtis, 31; Col. Collier, 4; Col. Smith, 34; Capt. Maury, 24; H. Griessell, 35.

Roman rock. “The Roman rock lighthouse, Simon's bay, Cape of Good Hope.” J. F. Bourne, xxviii. 49.

Small's Rock lighthouse off St. David's Head. J. Walker, ix. 189.

Souter Point lighthouse: J. N. Douglass, lvii. 83. Lower reflecting light

*Lighthouses—continued.*

- for Sunderland Bay, 85; J. T. Chance, 176; Prof. Tyndall, 186. Revolving apparatus, T. Stevenson, 119. Dioptric apparatus: J. T. Chance, 172. Condensing power, 182.
- Sunderland. "Account of the removal of the lighthouse at Sunderland." J. Murray, iii. 342. (2 plates.)
- Ushruffee lighthouse, Red Sea. W. Parkes, xxiii. 2, 6, 11, 22.
- Wolf rock. "The Wolf rock lighthouse." J. N. Douglass, xxx. 1. (4 plates.)—Discussion: Sir F. Arrow, xxx. 17; W. Parkes, 17, 26; C. H. Gregory, 19; Dr. W. Pole, 19; Capt. J. F. Owen, 21; G. R. Stephenson, 21; J. B. Redman, 22; J. Coode, 24; N. Beardmore, 25; M. Beazeley, 25; J. N. Douglass, 26.
- Zafarana lighthouse, Red Sea. W. Parkes, xxiii. 2, 3, 11.

**LIGHTHOUSES ON SCREW PILES:—**

- Height of solid portions of lighthouses above high water. D. A. Stevenson, xlv. 9.
- Horizontal bracing *versus* diagonal bracing of substructure. J. Walker, ii. (1842), 151; C. B. Vignoles, 152; B. Donkin, 152; J. Farey, 152.
- Lighthouses suitable for resisting earthquakes. R. H. Brunton, xlvii. 1; W. Lloyd, 31. Elastic fixings for lantern tables: E. Woods, 33.
- Modes of dovetailing the stones:—Wolf Rock, J. N. Douglass, xxx. 6, 27; W. Parkes, 18; M. Beazeley, 25. Skerryvore, Menai, and Bell Rock, J. B. Redman, 23.
- Principles of construction. W. Parkes, xxiii. 9, 40; E. A. Cowper, 28; J. Bower, 28; J. H. Porter, 29; J. G. C. Curtis, 33.
- Screw-pile lighthouses *versus* solid stone lighthouses. J. Walker, vii. 137; W. Wilkins, 155.
- Twin-screw steam tender for lighthouse construction. W. Douglass, xxxviii. 58.
- Use of lighthouses for signalling. C. Babbage, xxvi. 525.

Belfast Lough. A. Mitchell, vii. 123.

Fleetwood-on-Wyre, Morecambe Bay. A. Mitchell, vii. 119.

Maplin Sand. "An account of the Maplin Sand Lighthouse, at the mouth of the river Thames." J. B. Redman, ii. (1842), 150; vii. 146. (1 plate.)

—Discussion: W. Wilkins, vii. 155; J. Walker, 155, 156, 158; C. B. Vignoles, 156; B. Donkin, 156; J. Farey, 156, 157; Prof. Brande, 157; P. Taylor, 158; J. Taylor, 158; J. Glynn, 158; R. Davison, 158.

—A. Mitchell, vii. 118;—E. A. Cowper, xxiii. 28; W. Parkes, 40.

See *Sea light*.

**LIGHTHOUSES—ILLUMINATION:—**

- Historical notice. Sir J. Rennie, v. 63; J. T. Chance, xxvi. 483.
- Combinations or characters of lights. Admiral Collinson, xxviii. 36; Dr. Gladstone, 44; —L. Sautter, Lemonnier and Co., lvii. 122, 131; Admiral Sir R. Collinson, 148, 150; Prof. Tyndall, 159; J. N. Douglass, 162.
- Construction of lanterns. D. M. Henderson, xxviii. 19, 22, 46; J. N. Douglass, 37; W. Parkes, 41; Dr. Gladstone, 43; A. Beazeley, 44; T. A. Rochussen, 45.
- Inclined framing, by A. Stevenson. J. N. Douglass, xxvi. 528.
- Intensity and penetration of light in lighthouse illumination. E. Allard, xlv. 364.

Lighthouses—illumination—*continued.*

Lamps. D. M. Henderson, xxviii. 27.

"Lighthouse apparatus and lanterns." D. M. Henderson, xxviii. 2. (1 plate.)

—Discussion: D. M. Henderson, xxviii. 35, 45; J. B. Redman, 35; W. Airy, 35; Admiral Collinson, 36; J. N. Douglass, 37; W. Parkes, 41; W. H. Cutler, 42; Capt. Owen, 43; Dr. Gladstone, 43; A. Beazeley, 44; T. A. Rochussen, 45.

"Methods of illuminating lighthouses, with a description of a reciprocating light." J. T. Smith, (T.) ii. 193.

"Optical apparatus used in lighthouses." J. T. Chance, xxvi. 477. (2 plates.)

—Discussion: C. H. Gregory, xxvi. 507; J. T. Chance, 507, 535; G. B. Airy, 507; T. Stevenson, 510; Col. Smith, 511; Capt. Arrow, 516; R. P. Brereton, 521; Dr. Gladstone, 521; Admiral Hamilton, 524; O. Babbage, 521; J. N. Douglass, 527; C. W. Siemens, 529; J. F. Campbell, 532; Admiral Ryder, 533; J. B. Redman, 540.

Utilisation of landward rays of light, or back light. J. N. Douglass, lvii. 85; J. T. Chance, 176, 193; T. Stevenson, 86, 176, 177.

Argand oil lamp. J. T. Chance, xxvi. 477.

Aseismatic joint. R. H. Brunton, xlvii. 6, 26; aseismatic table, 27.

Azimuthal condensing system, by T. Stevenson. J. T. Chance, xxvi. 499.

Bude light at Orford. J. N. Douglass, lvii. 78.

Circular burners. J. Horne, i. (1837), 45.

Clockwork for lanterns. D. M. Henderson, xxviii. 30.

Doty's lamp, xlvii. 16, 34, 38.

Flashing lights. C. W. Siemens, xxvi. 531;—Prof. Tyndall, lvii. 112; L. Sautter, Lemonnier and Co., 121; Dr. Hopkinson, 137, 191; Admiral Sir R. Collinson, 149; W. H. Preece, 153; J. T. Chance, 175.

Gas lights, use of. W. D. Cay, xlvii. 37.

— J. R. Wigham's system at Haisbro' lighthouses. J. N. Douglass, lvii. 100, 160; Prof. Tyndall, 112, 159; Dr. Hopkinson, 136; J. R. Wigham, 138.

Glaas used in lighthouse apparatus: D. M. Henderson, xxviii. 3. Furnaces and pots for its production, 5; grinding and polishing, 7. Qualities: W. Airy, 35.

Lenses, manufacture of. G. B. Airy, xxvi. 508.

— and Prisms. D. M. Henderson, xvii. 14.

— Catoptric, or reflecting system. Col. Smith, xxvi. 511.

— Catoptric lights, Japan lighthouses. R. H. Brunton, xlvii. 15; aseismatic table for lighting apparatus, 6, 26, 28, 30, 35.

— Dioptric light at Wolf Rock. J. N. Douglass, xxx. 8.

— Dioptric lights: T. Stevenson, lvii. 112. Azimuthal condensing light, 113, 114. Back prisms, 114. Differential lens, 117.

— Dioptric apparatus for electric lighthouses. T. Stevenson, lvii. 112; L. Sautter, Lemonnier and Co., 120.

— — Condensing power; tables. J. T. Chance, lvii. 182, 183.

— Dioptric system: J. T. Chance, xxvi. 478.

— Dioptric light, Menai lighthouse. D. P. Hewett, ii. (1842), 123.

— Definition of Fresnel or dioptric apparatus. J. T. Chance, lvii. 168.

— Fresnel lens and the cylindrical refractor. J. T. Chance, xxvi. 483.

— Fresnel lens. Col. I. T. Smith, R.E., xxvi. 515.

— Catadioptric zones. J. T. Chance, xxvi. 487.

Lighthouses—illumination—*continued*.

Lenses. Catadioptric lights, sizes of: D. M. Henderson, xxviii. 9; two classes, 11.

— Catadioptric mirrors. D. M. Henderson, xxviii. 26.

— Catadioptric spherical mirror. J. T. Chance, xxvi. 497, 510.

— Lanterns with catadioptric lights for lightships, Japan. R. H. Brunton, xlvii. 16.

— Dioptric and catoptric systems compared. Capt. Arrow, xxvi. 516; Dr. Gladstone, 522; C. W. Siemens, 530; J. F. Campbell, 532; J. T. Chance, 537; J. B. Redman, 540.

Oils used. Admiral Collinson, xxviii. 36.

— Mineral (paraffin) oil *versus* colza oil, xlvii. 17, 30, 38, 39, 40.

— Oil-burners of single and double power at Holyhead lighthouse. J. N. Douglass, xlv. 120.

— Application of mineral oil to the illumination of the lighthouses of France. L. Gullo, i. 286.

Reflectors. Silvered porcelain reflectors, by Hon. Major Fitzmaurice. Capt. Washington, R.N., xv. 24; A. Gordon, 24; T. Stevenson, 25; Hon. Major Fitzmaurice, 26.

— Zinc reflector. T. Stevenson, xv. 25.

— Parabolic metallic reflector. J. T. Chance, xxvi. 493.

Refraction protractor, by A. Brebner, xxviii. 34.

Revolving apparatus:—Souter Point lighthouse: J. N. Douglass, lvii. 85, 119. The Northern lighthouses: T. Stevenson, lvii. 119. Japan, 119.

— light for lighthouses. Capt. Basil Hall, i. (1810), 20, 24.—Discussion: J. Parkes, i. (1840), 24; A. Gordon, 24; J. J. Hawkins, 24; J. Macneill, 25; Prof. Keating, 25; G. Lowe, 25; J. Walker, 25.

Sugg's burner. J. N. Douglass, xlv. 168.

“Ventilation of lighthouse lamps; the points necessary to be observed, and the manner in which these have been, or may be, attained.” Professor Faraday, ii. (1843), 206.

Bermuda. Admiral Ryder, xxvi. 533.

Dartmouth. Capt. Arrow, xxvi. 517; R. P. Brereton, 521.

Gibraltar. Capt. Arrow, xxvi. 517; J. N. Douglass, 527.

Halifax. Admiral Ryder, xxvi. 534.

Odessa harbour. Lamps at Odessa. D. M. Henderson, xxviii. 31.

Red Sea. Lanterns and lights. Ushruffee, Dædalus, and Zafarana lighthouses. W. Parkes, xxiii. 3, 11, 12; A. Gordon, 25; Capt. Arrow, 27.

Souter Point lantern: J. N. Douglass, lvii. 85; J. T. Chance, 173. South Foreland, 89. Lizard, 94. Cape La Hève, 97.

South Foreland. Sir G. B. Airy, xxvi. 510; Capt. Arrow, 519; J. N. Douglass, 527; C. W. Siemens, 529; J. F. Campbell, 532; J. T. Chance, 536.

— Drummond, or lime light. J. N. Douglass, lvii. 78.

Start lights. Sir G. B. Airy, xxvi. 508; J. T. Chance, 535.

Straits Settlement. Sea light, Cape Rachadah. Col. G. C. Collyer, R.E., xxiii. 34.

## LIGHTHOUSES—ILLUMINATION—ELECTRIC LIGHT:—

Comparative efficiency and cost of lighting by oil, coal-gas, and electricity.

J. N. Douglass, lvii. 100, 102, 160; tables, 108, 109, 110; Dr. J. Tyndall,

**Lighthouses—illumination—electric light—continued.**

111, 158; L. Sautter, Lemonnier and Co., 121; table, 130; J. R. Wigham, 140, 141; L. Sautter, 142; L. F. Vernon-Harcourt, 145; Admiral Sir R. Collinson, 151; W. H. Preece, 154; Dr. C. W. Siemens, 155; J. P. Griffith, 163.

“Dioptric apparatus in lighthouses for the electric light.” J. T. Chance, lvii. 168. (1 plate.)—Discussion: J. T. Chance, lvii. 184, 192; L. F. Vernon-Harcourt, 184; Hon. R. O. Parsons, 185; Prof. Tyndall, 186; J. N. Douglass, 187, 192; Dr. J. Hopkinson, 187; A. Brebner, 194.

Distribution of the light from oil lamps and from electric lamps. L. Sautter, Lemonnier and Co., lvii. 123; J. N. Shoolbred, 134; L. Sautter, 143.

“Electric light applied to lighthouse illumination.” J. N. Douglass, lvii. 77. (5 plates.)—Discussion: Prof. Tyndall, lvii. 111; T. Stevenson, 112; L. Sautter, Lemonnier, and Co., 119; J. N. Shoolbred, 133; Dr. Hopkinson, 135; J. R. Wigham, 137, 165; L. Sautter, 142; W. Sugg, 144; J. N. Douglass, 145, 160; L. F. Vernon-Harcourt, 145; Admiral Sir R. Collinson, 148; G. R. Stephenson, 152, 158; W. H. Preece, 152; Dr. C. W. Siemens, 155; S. A. Varley, 157; Dr. J. Tyndall, 158; J. P. Griffith, 163; M. Lepaute, 164; M. R. Ward, 164.

Lighthouse illumination by electric light. Dr. P. Higgs and J. R. Brittle, lii. 43; Dr. C. W. Siemens, 57; Dr. J. Tyndall, 61; J. N. Douglass, 70; R. H. Brunton, 78.

Magneto-electric light most appropriate for lighthouses. W. H. Cutler, xxviii. 42; D. M. Henderson, 45.

Range or penetrative power of the electric light. J. N. Douglass, lvii. 103, 160; Dr. J. Tyndall, 111, 158, 186; J. R. Wigham, 140; L. Sautter, 142; L. F. Vernon-Harcourt, 145, 184; Admiral Sir R. Collinson, 151; W. H. Preece, 154; Dr. C. W. Siemens, 155; J. P. Griffith, 163; M. Lepaute, 164; J. T. Chance, 180, 192; Dr. J. Hopkinson, 188; J. N. Douglass, 132.

Dungeness, Holmes' electric light at. J. T. Chance, xxvi. 478;—J. N. Douglass, lvii. 80.

— Intensity of the electric light. J. N. Douglass, lvii. 81, 106; Souter, 87, 106. South Foreland, 91, 106. Lizards, 92, 96, 106; table, 106. Cape La Hève, 98. Cape Grisnez, 99. L. Sautter, Lemonnier and Co., 122, 123; tables, 129, 130; J. N. Shoolbred, 133; J. R. Wigham, 137; Dr. J. Hopkinson, 189.

— Oil light *versus* electric light at. J. N. Douglass, lvii. 82.

Foreland (South), Holmes' magneto-electric light at. Dr. J. Tyndall, lii. 61; J. N. Douglass, 77.

— J. N. Douglass, lvii. 88, 145. Results of trials of magneto-electric and dynamo-electric machines, table, 105; J. N. Shoolbred, 135; Dr. J. Hopkinson, 135; J. R. Wigham, 137; Admiral Sir R. Collinson, 151; M. R. Ward, 164. Dioptric apparatus: J. T. Chance, lvii. 176. Auxiliary appliances, 177. Condensing power, 182.

France, electric lighthouses in. J. N. Douglass, lvii. 97.

— Cape La Hève. J. N. Douglass, lvii. 82, 97.

— Cape Grisnez. J. N. Douglass, lvii. 99.

— Isle of Planier, Marseilles. J. N. Douglass, lvii. 99.

— Odessa. J. N. Douglass, lvii. 100.

— Port Said. J. N. Douglass, lvii. 100.

**LIGHTHOUSES—ILLUMINATION—ELECTRIC LAMP :—**

Electric lamp. Dr. P. Higgs, and J. R. Brittle, lii. 40.

Holmes' lamp. J. N. Douglass, lvii. 81.

Serrin's automatic lamp at South Foreland. J. N. Douglass, lvii. 80.

Staite's electric lamp. J. N. Douglass, lvii. 79.

**LIGHTHOUSES—ILLUMINATION—ELECTRIC-LIGHT MACHINES :—**

Alliance Company's magneto-electric machine at Cape La Hève. J. N. Douglass, lvii. 82, 97.

Conducting cables between the machines and the lamps:—Souter Point: J. N. Douglass, lvii. 84. South Foreland, 89. Lizards, 94.

Dynamo-electric machines *versus* magneto-electric machines: trials by Dr. Tyndall. J. N. Douglass, lvii. 92; table, 105.

Gramme dynamo-electric machines at South Foreland, table. Dr. P. Higgs and J. R. Brittle, lii. 45; J. N. Douglass, lvii. 105, 45; L. Sautter, Lemonnier and Co., 128.

— three types. L. Sautter, Lemonnier and Co., lvii. 125; tables, 129, 130, 132; M. R. Ward, 164.

Holmes' magneto-electric machine at Blackwall: J. N. Douglass, lvii. 78. At South Foreland, 79. At Dungeness, 80.

— second magneto-electric machine, at the Paris Exhibition, 1867: J. N. Douglass, lvii. 82. At Blackwall, 83. At Souter Point lighthouse, 84. At South Foreland, 89, 105.

— dynamo-electric machine, at Blackwall. J. N. Douglass, lvii. 88.

Meritens, De, magneto-electric machine, at the Royal Institution. J. N. Shoolbred, lvii. 133; J. N. Douglass, 161.

Siemens' dynamo-electric machines at South Foreland lighthouse: table, Dr. P. Higgs, and J. R. Brittle, lii. 45; J. N. Douglass, lvii. 105; Dr. J. Hopkinson, 136.

Self-acting shunt. Dr. P. Higgs, and J. R. Brittle, lii. 42.

**LIGHTNING CONDUCTORS. See *Electric (lightning)* conduction.****LIGNITE :—**

Calorimetric trials and analyses of coals and lignites. A. Scheurer-Kestner and C. Meunier-Dollfus, xliii. 396.

Production of compressed fuel from earthy lignite in Prussia. R. A. Schultz, xlviii. 349.

Working of thick seams of lignite in Bohemia, xlvii. 383.

**LIME :—**

Blue lias lime, Greaves', ix. 233.

Hydraulic lime, bulk and weight of. Herr Wiebe, lii. 306.

—, at Zumaya, Spain. G. Higgin, xxvii. 493.

Kunkur lime, Ravi bridge. R. T. Mallet, liv. 63. Lime kiln, 63.

Lime and mortar yielded by blue lias limestone. G. Robertson, xvii. 428.

Limes and cements of Casale, Piedmont, and Liguria. G. Signorile, li. 284.

**LIMESTONE :—**

Analysis of magnesian limestone. Prof. E. Hull, xlix. 165.

Composition of blue lias limestone. G. Robertson, xvii. 411.

Halkin mountain limestone, composition. R. Rawlinson, xxv. 116.

Load supported by columns of limestone. M. Keller, l. 200.

LIQUIDS. Evaporation of superheated liquids. D. Gernez, xlv. 357.

— test for fluidity of. Dr. Ure, i. (1839), 76.

# LOCKS:—

Delay by flights of locks. S. Duer, xlv. 116; E. L. Williams, 123.

Evil of battered sides for locks. F. E. Duckham, lv. 60.

Improved canal lock. J. Field, (T.) i. 61.

Locks commonly used for river and canal navigation. W. A. Provis, (T.) i. 53.

New system of lockage for canals. J. Smith (Deanston), i. (1840), 53.

Principles of locking on canals. J. Leslie, xiii. 218.

Aubois, apparatus for saving water in locking erected at. A. de Caligny, i. 220.

— Results of a modification of. A. de Caligny, lvi. 337.

— Hydraulic brake at. A. de Caligny, lviii. 387.

France. Locks on the Eastern canal of France. W. B. Dawson, lv. 208.

Gravelle lock, on the St. Maurice canal. M. Dardart, xxxix. 389.

Holland. Locks on the Great North Holland canal. G. B. W. Jackson, vi. 89.

Newry canal, entrance of. Sir J. Rennie, x. 286.

Old Ford locks, river Lea navigation. R. C. Despard, xvii. 387.

Port Talbot, South Wales. H. R. Palmer, i. (1839), 79.

Severn. Lincomb lock. E. L. Williams, v. 341.

— Lock and basin on, at the Upper Lode, near Tewkesbury. E. L. Williams, xix. 527.

See *Docks*.

# LOCKS—LOCK-GATES:—

Construction of lock-gates. T. E. Harrison, xxxi. 350; J. Coode, 351; R. P. Brereton, 355.

Curvature of various lock-gates. P. W. Barlow, (T.) i. 77.

Form of lock-gates. F. E. Duckham, lv. 61; C. Graham Smith, 65.—W. J. Kingsbury, xviii. 469.

“New plan of construction of sliding gates for the entrance locks of docks,” &c. J. C. Singels, i. (1839), 78.—Discussion: H. R. Palmer, 79; J. Murray, xiii. 458.

Ramsey's rack-gear for manipulating lock-gates. J. Coode, xxxi. 352.

Rollers under lock-gates. Sir J. Hawkshaw, i. 89; J. Abernethy, 89; G. H. Phipps, 91; Sir W. G. Armstrong, 97.—J. B. Mackenzie, lv. 13, 90; W. R. Browne, 57; F. E. Duckham, 61; H. Hayter, 72; W. Stanley, 110; B. B. Stoney, 113.

Scantlings of square timber for the framing of wooden lock-gates. P. W. Barlow, (T.) i. 73.

Sliding gates *versus* hinged gates. H. R. Palmer, i. (1839), 79.

Sluices for lock-gates. Old Ford locks; Lea navigation: R. C. Despard, xvii. 389; N. Beardmore, 399; F. Lawrence, 401. Commercial docks: N. Beardmore, xvii. 399; F. Lawrence, 401.

“Strain to which lock-gates are subjected.” P. W. Barlow, (T.) i. 67.

Strains on lock-gates. W. J. Kingsbury, xviii. 469;—G. H. Phipps, xxxi. 339; F. J. Bramwell, 341; G. J. Morrison, 347; F. W. Shields, 349; W. R. Browne, 353.

*Lock-gates—continued.*

"Strength of lock-gates." W. R. Browne, xxxi. 317.—Discussion: G. H. Phipps, xxxi. 339; F. J. Bramwell, 341; G. J. Morrison, 347; F. W. Shields, 349; T. E. Harrison, 350; J. Coode, 351; W. R. Browne, 353; R. P. Brereton, 355.

— W. R. Browne, lv. 56; F. E. Duckham, 61; J. B. Mackenzie, 93.

Timber gates. "On framing lock-gates without ironwork." S. Ballard, i. (1839), 31.

Wrought-iron gates *versus* cast-iron gates. J. Murray, xviii. 479; T. E. Harrison, 516.

— *versus* timber gates. W. J. Kingsbury, xviii. 451; J. Abernethy, 477; J. Cooper, 481; R. Rawlinson, 481; A. Giles, 482; G. P. Bidder, 486;— W. R. Browne, lv. 56; H. Hayter, 71; J. B. Mackenzie, 93, 116; W. Stanley, 109; B. B. Stoney, 112.

Flushing, copper-sheathed lock-gates, at; dock for their repair, lv. 373.

France. Lock-gates, Eastern Canal of France. W. B. Dawson, lv. 208.

Tyne docks. Lock-gates. T. E. Harrison, xviii. 494, 515.

Southampton docks. Over-buoyancy of timber lock-gates: A. Giles, xvii. 547. Preferable to gates of iron, 549.

See *Docks*.—Dock-gates.

# LOCKS AND KEYS:—"Construction of locks and keys." J. Chubb, ix. 310.

—Discussion: J. Chubb, ix. 328, 335, 337, 338, 340; J. Farey, 331, 339, 342, 343; C. Varley, 336; P. R. Hodge, 336, 338; R. Stephenson, 336, 339, 342; J. Whitworth, 339; Capt. D. O'Brien, 339; C. Hart, 340; Mr. Owen, 341.

List of patents for locks and latches, ix. 326.

"Principles and construction of locks." A. C. Hobbs, xiii. 251.—Discussion: A. C. Hobbs, xiii. 263, 267, 270; E. B. Denison, Q.C., 264, 268; P. R. Hodge, 266; J. James, 266; Mr. Martin, 267; F. Whishaw, 268; W. Goater, 269; W. Carpmael, 269; E. Chubb, 270.

# LOCOMOTION ON COMMON ROADS. See *Roads*, Common, Locomotion on.

## LOCOMOTIVES—general references:—

Historical notice. Sir J. Rennie, v. 69;—J. Field, vii. 30;—J. Kennedy, xvi. 22, 25; R. Stephenson, 23; E. Woods, 23; G. H. Phipps, 25;—D. K. Clark, xii. 382; xix. 550.

Adams's spring-tires and their performance. W. B. Adams, xxiii. 415, 417, 426; C. H. Gregory, 428; G. H. Phipps, 435; W. Adams, 438.

American locomotives at the Philadelphia Exhibition of 1876. Capt. D. Galton, C.B., liii. 50, 58, 59; C. D. Fox, 68.

"Certain forms of locomotive engines." E. Woods, (T.) ii. 137.

"Construction of locomotive engines, especially with respect to those modifications which enable additional power to be gained, without materially increasing the weight, or unduly elevating the centre of gravity." T. R. Crampton, viii. 233. (1 plate.)—Discussion: T. R. Crampton, viii. 240, 245, 247, 249, 252, 253, 257, 259, 260; R. Stephenson, 241, 246, 247, 250, 252, 253, 258, 260; I. K. Brunel, 242, 252; J. V. Gooch, 244; G. Rennie, 244; W. B. Adams, 245; P. W. Barlow, 248; G. P. Bidder, 250, 256, 258; J. Locke, 254; Gen. Sir C. Pasley, 254, 258; S. C. Homersham, 257; G. Berkley, 257; H. Maudslay, 260.



**Locomotives—general references—continued.**

Crampton's locomotive. D. K. Clark, xvi. 16, 17, 18, 38; T. R. Crampton, 30, 37.

Cylinders, moulding-boxes, for moulding. J. Fernie, xxii. 609.

Four-wheeled engines *versus* six-wheeled engines. E. Bury, (T.) iii. 313.

Heated by hot fire-bricks, proposed for long tunnels. C. W. Siemens, xlv. 67.

Inside cylinders *versus* outside cylinders. T. R. Crampton, viii. 235; R. Stephenson, 241; J. V. Gooch, 244; G. P. Bidder, 250; Maj.-Gen. Sir C. Pasley, 258.

Light engines *versus* heavy engines. J. Brunlees, xxi. 351, 419; Sir J. Paxton, 388; G. B. Bruce, 408; Sir G. B. Airy, 411; J. Hawkshaw, 422.

"Locomotive engines." E. Woods, i. (1838), 3.

Locomotives of the Port Augusta and Port Darwin railway. R. C. Patterson, lvi. 39.

Mallet's locomotives with compound cylinders. M. Lestang, li. 314.

Narrow gauge locomotives, Eibenthal mineral railway. F. Gamillshegg, lii. 323.

— *versus* broad gauge locomotives. Capt. D. Galton, liii. 57, 59.

Relative diameters of the axle and the nave of the wheels of locomotives. J. Fernie, xxii. 607.

Single wheels *versus* coupled wheels. F. W. Webb, xli. 44.

Stephenson's long-boiler engine. R. Stephenson, viii. 241, 255; I. K. Brunel, 242; P. W. Barlow, 248; Maj.-Gen. Sir C. Pasley, 255; D. K. Clark, xii. 399.

Templates and gauges employed in the construction of locomotives. J. Fernie, xxii. 608, 610; F. J. Bramwell, 612.

Twin-cylinder locomotive, by W. B. Adams, xxxi. 375.

Utilisation of steam and compound cylinders in locomotives. A. Mallet, liii. 357.

**LOCOMOTIVES, ADHESION OF :—**

Baltimore and Ohio incline. T. S. Isaac, xviii. 61. Mountain Top incline, 61. Cleveland and Pittsburg railroad: Z. Colburn, 63; New York and Erie railroad, 63.

Common error in ascertaining locomotive adhesion available for the traction of trains. J. Moschell, xxxix. 346.

Pressure for adhesion as affected by inclines. C. B. Vignoles, xxvi. 354; C. Reilly, 354.

Slipping, cause of, of locomotives on inclines. B. I. Stalkofski, i. 254.

— Slipping of locomotive wheels. M. Rabeuf, liii. 346.

— driving-wheels. P. Oppizzi, lvi. 317.

Various estimates of proportion of adhesion. C. R. Drysdale, xv. 354, 374; Capt. W. S. Moorsom, 366, 368; J. Hawkshaw, 367; C. B. Vignoles, 369; E. Woods, 370; N. Wood, 371; G. P. Bidder, 372.—Capt. W. S. Moorsom, xviii. 67; J. Hawkshaw, 68; G. P. Bidder, 69.—T. Hawksley, xix. 521; C. B. Vignoles, 521; G. P. Bidder, 525.—Z. Colburn, xxiii. 404; G. P. Bidder, 404.—Capt. W. H. Tyler, xxvi. 310, 311, 312, 326, 389; H. Conybeare, 336, 337; J. Brunlees, 343, 394; W. Naylor, 348; C. F. Beyer, 352; E. Woods, 352; C. B. Vignoles, 354; C. Reilly, 354; J. A. Longridge, 371; W. I. Ellis, 374; E. A. Cowper, 376; R. P. Brereton, 378.

**Locomotives, adhesion of—continued.**

—Z. Colburn, xxviii. 369, 427; T. E. Harrison, 398; P. R. Hodge, 402; E. A. Cowper, 410; G. W. Hemans, 410; J. J. Birekel, 431.—W. Pole, xxxvi. 112; J. Brunlees, 112.

**LOCOMOTIVES—COMPOSITION OF MILEAGE-RUN:—**

Composition of engine-mileage, Great Southern and Western railway.

A. McDonnell, xlviii. 8, 35.

Proportion of train-mileage and shunting-mileage, Great Eastern railway.

by S. Johnson; R. Price Williams, xxx. 193.

Train-mileage—what is it? Sir J. Hawkshaw, xlviii. 60; E. Woods, 60;

A. McDonnell, 69.

Usual proportion of train-mileage to engine-mileage. A. McDonnell,

xlvi. 35, 69.

**LOCOMOTIVES, COMPRESSED AIR:—**

Compressed-air locomotive, by M. Gallez, at the 'Charbonnages Belges.' P. Banneux, liv. 331.

— having Mékaraki's hot-water reservoir, St. Gothard Tunnel, lvii. 245.

— in long tunnels, by J. F. Bateman and M. Révy, xlv. 48; V. G. Bell, 50.

Early locomotive at St. Gothard tunnel. D. K. Clark, xlii. 248; locomotives by Schneider and Co., 248.

**LOCOMOTIVES—COST (FIRST):—**

Cost of locomotives and tenders. R. Price Williams, xxx. 137-149, 158-190.

German locomotives and tenders. R. Crawford, xxii. 11.

Great Northern railway. First cost of express engine. P. Stirling, xlviii. 59.

Great Southern and Western railway. Tables of cost of construction of standard engines. A. McDonnell, xlviii. 28, 29.

Great Western railway. First cost of locomotive stock. J. Armstrong, xlviii. 45; table, 50.

Narrow-gauge *versus* broad-gauge engines. Capt. D. Galton, liii. 57, 59.

Paris and Orleans railway. Tables of first cost of engines. A. McDonnell, xlviii. 21, 22.

Pennsylvania railroad. Locomotive boilers. C. D. Fox and F. Fox, xxxix. 69.

Philadelphia and Reading railroad. First cost of locomotives. A. McDonnell, xlviii. 19.

Philadelphia Exhibition of 1876, boilers of locomotives at the. Capt. D. Galton, C.B., liii. 51.

**LOCOMOTIVES—COST FOR REPAIR AND RENEWAL:—**

English railways, tables of cost for repairs and renewals of engine stock of several. A. McDonnell, xlviii. 2, 3, 16.

— Cost for repairs and renewals of engine stock on six. R. Price Williams, xlviii. 35, 36.

— Table of train-mileage and locomotive expenses on twenty. D. Drummond, xlviii. 66.

France, cost for repairs and renewals of engine stock, Northern railway of. A. McDonnell, xlviii. 25.

— Cost for repair and renewals of engine stock, Paris, Lyons, and Mediterranean railway. A. McDonnell, xlviii. 24.

**Locomotives—cost for repair and renewal—continued.**

French railways. Table of cost for repair and renewals of engine stock, Paris and Orleans railway. A. McDonnell, xlviii. 20.

Great Northern railway, cost for repairs and renewals. P. Stirling, xlviii. 59.

Great Southern and Western railway, repairs and renewals of engine stock.

A. McDonnell, xlviii. 9, 13, 14; tables, 30, 34, 38; R. Price Williams, 36; J. Armstrong, 45.

— Table of cost for repair of three standard classes of engine stock. A. McDonnell, xlviii. 27.

— Table of cost of tires for repairs and renewals of engine stock. A. M. McDonnell, xlviii. 32, 33.

— Cost for repairs and renewals of iron and brass flue-tubes. A. McDonnell, xlviii. 13.

Great Western railway. Cost for repair and renewal of engine stock. J. Armstrong, xlviii. 41.

— Table of locomotive expenditure. J. Armstrong, xlviii. 53.

London and Birmingham railway. Working and maintenance of locomotives in 1839-40; E. Bury, (T.) iii. 305, 318; tables, 318 to 342.

“Maintenance and renewal of railway rolling stock.” R. Price Williams, xxx. 136. (5 plates.) Discussion: see *Railway Rolling Stock*.

North Eastern railway. Maintenance and renewal of locomotive stock. E. Fletcher, xxiv. 461, 484; G. P. Bidder, 503, 508; T. E. Harrison, 510.

Philadelphia and Reading railroad. Table of repairs and renewals of engine stock. A. McDonnell, xlviii. 18.

Prussian railways. Maintenance of engines. T. A. Rochussen, xxv. 431, 442, 448; table, 438.

“Repairs and renewals of locomotives.” A. McDonnell, xlviii. 2. (2 plates.)

— Discussion: A. McDonnell, xlviii. 35, 68; R. Price Williams, 35; W. Adams, 40; J. Armstrong, 41; H. Hughes, 59; P. Stirling, 59; Sir J. Hawkshaw, 60, 68; E. Woods, 60; W. Kirtley, 61; D. Drummond, 65; J. Head, 68; G. R. Stephenson, 72.

Russian railways. Cost for repairs and renewals of engine stock. A. McDonnell, xlviii. 26.

**LOCOMOTIVES—LIFE AND WEAR:—**

Age of locomotives on the North Eastern railway. E. Fletcher, xxiv. 461; tables, 483, 484; T. E. Harrison, 492.

American locomotives. Life, mileage, and cost. R. M. Brereton, liii. 89.

American *versus* English engines. liii. 89.

Average age of engine stock, Great Southern and Western railway. R. Price Williams, xlviii. 39.

Life of locomotives. E. Fletcher, xxiv. 460; table, 483; T. E. Harrison, 494, 510; J. Hawkshaw, 495; G. P. Bidder, 503, 506, 509.

• Mileage run by locomotives. E. Fletcher, table, xxiv. 484; G. P. Bidder, 505, 506, 509; T. E. Harrison, 510.

**LOCOMOTIVES—AXLES:—**

Life, or mileage run by crank axles, North Eastern railway. T. E. Harrison, xxiv. 510.

Mileage of iron crank axles, Midland railway. W. Kirtley, xlviii. 65.

**Locomotives—axles—continued.**

Mileage of iron crank axles, Great Western railway. J. Armstrong. Iron, xlviii. 48; table, 57; steel, 48; table, 56.

— of cast-steel crank-axles, London, Chatham, and Dover railway. W. Kirtley, xlviii. 65.

— of crank axles, Great Southern and Western railway. A. McDonnell: iron, xlviii. 11; Bessemer steel, 12; cast-steel, 12.

Some breakages of locomotives axles on the Frankfurt-Bebrn railway, lvi. 321.

Strains on and life of crank axles. W. Fairbairn, xiii. 468; D. K. Clark, 469; T. R. Crampton, 469; J. Hawkshaw, 469.

**LOCOMOTIVES—BOILERS AND FIRE-BOXES:—**

Life of a boiler and a fire-box, Great Northern railway. P. Stirling, xlviii. 59.

Life or mileage run by a boiler, North Eastern railway. T. E. Harrison, xxiv. 510. By fire-boxes, 510.

Mileage of fire-boxes, Philadelphia and Reading railroad. A. McDonnell, xlviii. 19.

Table of life and mileage of boilers and fire-boxes, London, Chatham, and Dover railway. W. Kirtley, xlviii. 63.

Table of life and mileage of boilers, Midland railway. W. Kirtley, xlviii. 63.

Tear and wear of locomotive boilers. C. H. Gregory, xv. 301.

**LOCOMOTIVES—TIRES:—**

Comparative wear of four classes of engine tires (steel tires, iron tires, and Adams' spring tires), on the St. Helen's railway. W. B. Adams, xxiii. 417.

Life of, or mileage run by, iron tires, North Eastern railway. T. E. Harrison, xxiv. 510.

Wear of locomotive steel tires: Railways in Prussia. T. A. Rochussen, xxv. 432, 434, 448; tables 438, 443-446.

**LOCOMOTIVES—TUBES:—**

Mileage of flue-tubes, Great Eastern railway. W. Adams, xlviii. 40.

— of iron flue-tubes, Great Western railway. J. Armstrong, xlviii. 47; table, 54.

— of iron and brass flue-tubes, Great Southern and Western railway. A. McDonnell, xlviii. 13, 70. Thickness, 70.

— of brass, copper, and iron flue-tubes, London, Chatham, and Dover railway. W. Kirtley, xlviii. 64.

— of brass tubes, Midland railway. W. Kirtley, xlviii. 64.

— of iron flue-tubes, Philadelphia and Reading railroad. A. McDonnell, xlviii. 19.

Wear of flue-tubes. J. Sewell, xii. 440.

**LOCOMOTIVES—WHEELS:—**

Mileage of cast-iron driving and bogie-engine wheels, Philadelphia and Reading railroad. A. McDonnell; xlviii. 19.

**LOCOMOTIVES—LOCOMOTIVE AS A CARRIAGE:—**

Bissell truck. E. Woods, xxiii. 435.

Bogies. Advantages of bogie engines. G. B. Bruce, xxi. 408.

Locomotives—Locomotive as a carriage—*continued*.

Bogies. E. Slaughter, xxxvii. 31; E. Woods, 42; H. Appleby, 48; J. Robinson, 52.

Conditions of stability. T. R. Crampton, viii. 233, 240, 245, 248, 257, 259; I. K. Brunel, 243, 252; G. Rennie, 244; R. Stephenson, 246, 250; P. W. Barlow, 248; G. P. Bidder, 250; Maj.-Gen. Sir C. Pasley, 254; S. C. Homersham, 257;—D. K. Clark, xvi. 15.

Conical *versus* cylindrical wheels in locomotives. J. A. Longridge, xxvii. 391.

Distribution of weight. D. K. Clark, xvi. 16, 39; T. R. Crampton, 37.

“Disturbing forces of locomotive engines, some of the internal.” A. W. Makinson, xxii. 65. (2 plates.)—Discussion: A. W. Makinson, xxii. 83, 106; J. Kitson, 83; T. E. Harrison, 84; F. J. Bramwell, 85; J. S. Russell, 92; E. A. Cowper, 94; G. H. Phipps, 97; R. Sinclair, 98; W. Gravatt, 99; J. Kershaw, 99; G. L. Molesworth, 100; C. B. Vignoles, 100; G. W. Hemans, 101; G. P. Bidder, 102; E. Reynolds, 104; W. Naylor, 106; C. B. Lane, 106.

Economy of fuel by equilibrating the ‘Canute’ express engine, on the London and South Western railway. D. K. Clark, xvi. 18, 26. The ‘Norman’ and other goods engines, 19, 26. Passenger engines on the Cork and Bandon railway, 26. Express engines on the Eastern Counties railway, G. P. Bidder, 36.

Equilibration: D. K. Clark, xvi. 17. Evidence by wear of leading wheels, 18; G. P. Bidder, 36; T. R. Crampton, 36.

— of locomotives. A. W. Makinson, xxii. 75; T. E. Harrison, 84; F. J. Bramwell, 92; E. A. Cowper, 95; R. Sinclair, 98; E. Reynolds, 105.

Influence of curves on working. T. E. Harrison, xxviii. 264, 265.

Limiting or proper maximum weight on one wheel: C. Manby, xv. 45;—C. D. Fox, xxvi. 49, 56, 60, 61, 78; G. W. Hemans, 64; E. Woods, 67. Rajpootana railway: H. Bell, l. 151.

Maximum load on one wheel of locomotives, United States. C. D. Fox, liii. 68.—R. C. Patterson, lvi. 43.

Oscillation of a locomotive or carriage suspended on springs. M. Desmousseaux de Givré, liii. 343.

Three-cylinder locomotive, Stephenson’s. T. E. Harrison, xxii. 84; G. P. Bidder, 102.

## LOCOMOTIVES—LOCOMOTIVE STOCK—GENERAL REFERENCES:—

“Improvement of railway locomotive stock, and the reduction of the working expenses.” D. K. Clark, xv. 496; xvi. 3, 25. (1 plate.)—Discussion: J. Kennedy, xvi. 22, 25; R. Stephenson, 23; E. Woods, 23, 27; G. H. Phipps, 25; D. K. Clark, 25, 30, 38; F. Braithwaite, 27; J. Beattie, 28, 30, 41; T. R. Crampton, 30, 31, 36; H. Robertson, 31; A. Slate, 34; W. Exall, 34; T. Webster, 35; G. P. Bidder, 36; W. B. Adams, 39.

“Maintenance of railway rolling stock.” E. Fletcher, xxiv. 459.—Discussion: See *Railways—Rolling Stock*.

— and renewal of railway rolling stock.” R. Price Williams, xxx. 136. (5 plates.)—Discussion: See *Railways—Rolling Stock*.

“Modern locomotives, designed with a view to economy, durability, and facility of repair, together with some particulars of the duty performed and of the cost of repairs.” J. Robinson, xxxvii. 1. (1 plate.)—Discussion: J. Robinson, xxxvii. 15, 52; E. Reynolds, 15; F. W. Webb, 17,

Locomotives—Locomotive stock—general references—*continued*.

22, 30; R. Price Williams, 20, 34; J. Fowler, 21, 22; F. J. Bramwell, 23; C. W. Siemens, 27; T. R. Crampton, 28, 31; W. Stroudley, 29; P. Stirling, 30, 57; W. Adams, 30; J. I. Thornycroft, 31; E. Slaughter, 31; T. Hawksley, 38; E. Woods, 38; J. Tomlinson, Jun., 42; H. Appleby, 48; J. Brunlees, 52; D. Halpin, 53; A. McDonnell, 54; G. H. Royce, 54; A. Rumball, 56.

"American locomotives and rolling stock." Z. Colburn, xxviii. 360.—Discussion: Z. Colburn, xxviii. 385, 423; G. W. Hemans, 385; W. B. Adams, 386, 402; G. Berkley, 393; W. B. Lewis, 396; R. P. Brereton, 396; W. A. Adams, 397; T. E. Harrison, 397; P. R. Hodge, 402; W. Atkinson, 404; E. A. Cowper, 406, 409; Major Palliser, 407; W. Pole, 408; G. W. Hemans, 411; Capt. H. W. Tyler, 411; Sir C. Fox, 415; W. Lloyd, 420; G. K. Radford, 423; J. J. Birkel, 430; O. Younghusband, 433. Bilbao Iron Ore Company. Locomotive stock, F. C. Barron, li. 249.

German Railway Union. Locomotives and tenders: Report of the. W. R. Brown, lvii. 216.

— railways. R. Crawford, xxii. 25.

Great Southern and Western railway. Construction and dimensions of three types of engines. A. McDonnell, xlviii. 4, 6, 70. Tank engines, 8.

Great Western railway: Locomotive stock of the. J. Armstrong, xlviii. 45, 47. Table of dimensions and first cost, 50; table of number of renewals, 54; table of average age, 55.

Indian tramways. C. D. Fox, xxvi. 52, 63.

— Mètre gauge, Rajpootana railway. H. Bell, l. 151.

"London and Birmingham railway, Locomotive engines of the." E. Bury, (T.) iii. 305.

London and North Western railway, locomotive stock of the. G. Findlay, xli. 3, 5; F. W. Webb, 44. Shunting engines: F. W. Webb, xli. 44.

Pennsylvania railroad, three types of locomotives of the. C. D. Fox and F. Fox, xxxix. 67.

Prussia, locomotive stock, railways in. T. A. Rochussen, xxv. 431; table, 436; 447.

Recife and São Francisco railway. W. M. Peniston, xxii. 406.

Santiago and Valparaiso railway. W. Lloyd, xxiii. 391; E. Woods, 400.

LOCOMOTIVES, resistance of. See *Railways*, Resistances on.

## LOCOMOTIVES, VALUATION OF:—

Valuation of locomotives and tender. R. Price Williams, xxx. 148, 168, 187, 188, 189, 190, 191; J. T. Harrison, 194; D. K. Clark, 197; F. J. Bramwell, 202; G. H. Phipps, 205.

Weight, value, and life of the elements of a locomotive and tender. R. Price Williams, xxx. 137, 139 to 149, 158, 180 to 190, 203; T. E. Harrison, 203.

## LOCOMOTIVES, WORKING AND PERFORMANCES OF:—

Apparatus for tracing, at a distance, curves representing the work done by the steam within the cylinders of locomotive engines. M. Deprez, lviii. 390.

Baldwin locomotive, tests of a. J. W. Hill, lvii. 341.

Locomotives, working and performances of—*continued.*

- Beattie's coal-burning engine "Canute," on the London and South Western railway, under various conditions: D. K. Clark, xvi. 9. Equilibration of the machinery, 18, 19: E. Woods, 27.
- passenger engines and goods engines, London and South Western railway: J. Beattie, xvi. 28, 30. Report of Mr. Belpaire, 29.
- "Fire King," fitted with Beattie's feed-water heating apparatus, London and South Western railway. W. G. Beattie, xxiv. 254.
- Blast, resistance of the. J. Parkes, (T.) iii. 143.
- Efficiency affected by the action of the blast. G. P. Bidder, xi. 406.
- "Coal-burning and feed-water heating in locomotive engines." D. K. Clark, xix. 546. (1 plate.)—Discussion: D. K. Clark, xix. 564, 566, 583; J. Hawkshaw, 565; Mr. Wright, 566; G. Berkley, 566; W. H. Barlow, 567; J. A. Longridge, 567, 576; T. Hawksley, 569, 579; T. Yarrow, 571; Z. Colburn, 572; E. A. Cowper, 580; C. Greaves, 581.
- "Comparison between the power of locomotive engines and the effect produced by that power at different velocities." Prof. Barlow, i. (1839), 46.
- Consumption of steam and fuel. J. Parkes, i. (1840), 9.
- of fuel in locomotives. E. Belleruche, xlii. 319.
- Continuous working of locomotives, lvii. 340.
- Crampton engines, Northern railway of France. T. R. Crampton, xvi. 38.
- Crewe engines *versus* McConnell's engines. E. Woods, lii. 139.
- Dynamometer, new, for locomotives. H. Killiches, liii. 342.
- Economy of fuel in the early engine stock of the Liverpool and Manchester railway. E. Woods, xlviii. 48, 61.
- Expansion working of steam and its condensation: D. K. Clark, xvi. 14.
- Conditions of greatest efficiency, 14, 20.
- Express engine, London and North Western railway. J. Robinson, xxxvii. 7; R. Price Williams, 34; J. Tomlinson, Jun., 42;—E. B. Webb, xxxix. 91.
- Great Northern railway. J. Robinson, xxxvii. 5; E. Reynolds, 16; P. Stirling, 30, 57; R. Price Williams, 34; J. Tomlinson, Jun., 42.
- Goods engine, Great Southern and Western railway. J. Robinson, xxxvii. 9.
- Bombay, Baroda, and Central India railway. J. Robinson, xxxvii. 10.
- Hecla; between Liverpool and Birmingham, by E. Woods. J. Parkes, (T.) iii. 111.
- "Investigation into the power of locomotive engines, and the effect produced by that power at different velocities." Prof. P. Barlow, (T.) iii. 183.
- Jeffrey's coal-burning engines, Shrewsbury and Hereford railway. H. Robertson, xvi. 31.
- "Locomotive engines and the means of supplying them with steam." Jacob Perkins, i. (1837), 20.
- power *versus* horses' power. Capt. W. H. Tyler, xxiv. 387;—M. Colrat, i. 246, 247.
- Narrow gauge Queensland railways: C. D. Fox, xxvi. 55, 62. Performance, 55.
- Norway: C. D. Fox, xxvi. 51. Performance, 51. R. Peacock, 76.
- Norris. "Description of the American engine 'Philadelphia,' made by Mr. Norris of Philadelphia, North America, for the Birmingham and Gloucester railway." G. D. Bishopp; communicated by Capt. W. S. Moorsom, ii. (1843), 99.

Locomotives, working and performances of—*continued.*

- Norris. "Account of a series of experiments on locomotive engines, more particularly on the 'England,' the 'Columbia,' and the 'Atlantic,' manufactured by Mr. Norris of Philadelphia." Capt. W. S. Moorsom, i. (1840), 45.—Discussion: Capt. Moorsom, i. (1840), 45; E. Bury, 48, 49; B. Donkin, 48; J. Walker, 49.
- Performance of American bogie engines, by Mr. Norris, Birmingham and Gloucester railway. Capt. Moorsom, i. (1840), 45.
- Performance of American locomotives. Capt. D. Galton, liii. 54.
- of coal-burning locomotives. D. K. Clark, xix. 564; tables, 558, 560; J. Hawkshaw, 565.
- of coal-burning locomotives on the Santiago and Valparaiso railway. W. Lloyd, xxiii. 391.
- of the early locomotive engine. J. Parkes, (T.) iii. 77, 117, 153.
- of locomotives. D. K. Clark, xii. 389; table, 390; G. P. Bidder, 420; Capt. W. S. Moorsom, 425; P. M. Parsons, 429.
- "Practical observations on the management of a locomotive engine." C. H. Gregory, i. (1841), 73.
- "Steam engines, principally with reference to their consumption of steam and fuel." J. Parkes, i. (1840), 6.
- Steam traction on light railways (mineral). M. Colrat, l. 246.
- Tank engine, Furness railway: J. Robinson, xxxvii. 12.
- London, Brighton and South Coast railway. W. Stroudley, xxxvii. 29.
- Metropolitan railway. J. Tomlinson, Jun., xxxvii. 45.
- Metropolitan District railway. J. Fowler, xxxvii. 2.
- Tendency of the reversing lever of locomotives, to return suddenly when pulled over. A. Balguerie, xxxix. 349.
- Use of locomotives underground. C. Heinrich, l. 247.
- Chili, railways in. W. Lloyd, xxviii. 420.
- Great Western railway engines. J. Parkes, (T.) iii. 127; tables, 142.
- Great Southern and Western railway engines. A. McDonnell, xlviii. 5, 6, 7.
- Liverpool and Manchester railway engines. J. Parkes, (T.) iii. 127; tables, 142.
- London and Birmingham railway. "Account of the performances of the locomotive engines on the, during the year 1839." E. Bury, i. (1840), 33.
- J. Parkes, (T.) iii. 127; tables, 142; E. Bury, (T.) iii. 307; tables, 333 to 339.
- Paris, Lyons, and Mediterranean railway engines. A. McDonnell, xlviii. 21.
- Paris and Orleans railway engines. A. McDonnell, xlviii. 23.
- Prussia, railways in. T. A. Rochussen, 431; tables, 437.
- São Paulo railway, xxx. 44, 55.
- United States, locomotives in the: Z. Colburn, xxviii. 369, 385. Pennsylvania railroad: O. D. and F. Fox, xxxix. 67, 82, 83, 88; T. W. Woradell, 92, 119. Engines of the Philadelphia and Reading railroad, xlviii. 18.

## LOCOMOTIVES, FOR STEEP INCLINES:—

- "Bavaria," with chained wheels, for the Semmering incline. C. R. Drysdale, xv. 352.
- Bogie engines, Lickey incline. G. D. Bishopp, ii. (1843), 99; J. E. McConnell, 102, 103.
- tank-engines, Coquimbo railway, Cl.iii. E. Woods, xxiii. 401.



Locomotives, for steep inclines—*continued*.

- Central-rail locomotives for the Mont Cenis railway. J. B. Fell, xxiii. 315; xxvi. 313, 326, 329, 362, 371, 394. Trials, 315, 326. Estimated performances, 323;—J. A. Longridge, xxviii. 257.
- M. Desbrière, xlvii. 331.
- Double engine. G. M. Thouvenot, xxvi. 312.
- Eight-coupled wheel locomotives on the South Austrian railways, 1872 to 1875. A. Gottschalk, xlix. 315.
- engines, Baltimore and Ohio railway. T. S. Isaac, xviii. 53; Z. Colburn, 63.
- engines, Great Indian Peninsula railway. G. Berkley, xix. 612; xxviii. 274.
- locomotives on the Semmering incline. G. Berkley, xxviii. 273.
- Fingerth's locomotive on the Semmering incline. C. R. Drysdale, xv. 353, 356; R. Crawford, xxii. 11.
- Fairlie's double-bogie engines, Main Range incline, Queensland railway, C. D. Fox, xxvi. 55, 78.
- Capt. H. W. Tyler, xxvi. 312, 325, 391; H. Conybeare, 339; R. F. Fairlie, 367; W. L. Holt, 379.
- Experiences in the working of mountain railways. M. Steinsberg, xxxix. 335.
- Four-coupled wheel engines, Festiniog railway. Capt. W. H. Tyler, xxiv. 361, 362.
- French engines: Gouin and Co.'s. W. I. Ellis, xxvi. 373.
- Goods tank locomotive for working on heavy lines. F. J. Blancoquart, lii. 327.
- Incline engines, United States. Z. Colburn, xxviii. 375.
- H. Conybeare, xxvi. 334, 339; W. Naylor, 347; W. Lloyd, 351.
- Locomotive with radial axles, St. Helens railway. J. Cross, xxiii. 407.
- engines on inclined planes. M. Le Chatelier, xxxix. 342.
- Norwegian railways. P. Bruff, xxiv. 373.
- Rack-rail engine on the Rigi railway. W. Pole, xxxvi. 103.
- Rarchaert's double-bogie locomotive, all coupled. M. Massieu, xlix. 312.
- Six-coupled wheel tank-engines, Aix-la-Chapelle incline. R. Crawford, xxii. 8.
- engines, Mountain-top incline, Virginia Central railway. T. S. Isaac, xviii. 56, 60, 61, 64.
- bogie engines, Copiapo extension railway, Chili. E. Woods, xxiii. 400, 401; xxiv. 380; xxvi. 67.
- engine, Carrizal railway, Chili. E. Woods, xxvi. 67, 70.
- tank-engine, Tongoi railway, Chili. E. Woods, xxvi. 67, 69.
- Six-wheeled and eight-wheeled coupled tank-engines, Mauritius railway. J. Hawkshaw, xxvi. 384;—J. R. Mosse, xxviii. 238, 248, 254; W. Atkinson, 267; J. W. Barry, 269; G. Berkley, 271; J. Hawkshaw, 284.
- Small-wheeled engines. W. I. Ellis, xxvi. 373.
- Special qualifications for incline locomotive. J. Cross, xxiii. 406.
- Stephenson's twin locomotives on the Giovi incline. C. R. Drysdale, xv. 358;—F. J. Bramwell, xxvi. 72;—G. Berkley, xxviii. 273, 274.
- "Structure of locomotive engines for ascending steep inclines with sharp curves on railways." J. Cross, xxiii. 406.—Discussion on this and W. B. Adams's Paper on impedimental friction: C. H. Gregory, xxiii.

**Locomotives, for steep inclines—continued.**

428, 434; C. B. Vignoles, 430, 431; G. H. Phipps, 431, 435; J. S. Russell, 432; G. W. Hemans, 432, 435; W. H. Barlow, 434; G. Berkley, 434; E. Woods, 435; T. E. Harrison, 436; J. M. Heppel, 436; J. Hawkshaw, 437; W. Adams, 438; J. Cross, 438; W. B. Adams, 438; G. P. Bidder, 441.

Table showing comparative available power of incline-locomotives. J. Brunlees, xxvi. 343.

Twin-cylinder locomotive, by W. B. Adams, xxxi. 375.

See *Railways*, Motive power for Steep Inclines.

**LOCOMOTIVES ON STEEP INCLINES, WORKING AND PERFORMANCE OF:—**

Comparative cost of locomotives and rope system for working. G. W. Hemans, xxx. 64; W. Lloyd, 66; F. J. Bramwell, 67; J. Hawkshaw, 68; G. V. Bell, 69; J. Bayliss, 71; J. Cooode, 74.

Locomotives on inclines. Water lubrication of the leading wheels. G. O. Mann, xxiv. 10.

Locomotives *versus* stationary engines, for inclines. C. R. Drysdale, xv. 360, 363, 375; E. Woods, 371; N. Wood, 372; T. S. Isaac, xviii. 62.

Lubricating the flanges of the leading-wheels of locomotives, li. 315.

Principles of incline engines. C. R. Drysdale, xv. 362.

"Steep gradients of railways, and the locomotives and stationary engines employed." C. R. Drysdale, xv. 349.—Discussion: Capt. Moorsom, xv. 365, 368, 374; J. Hawkshaw, 366, 368; C. B. Vignoles, 368; A. S. Jee, 369; E. Woods, 370; W. Fairbairn, 371; N. Wood, 371; G. P. Bidder, 372; T. R. Crampton, 373; W. Weallens, 373; C. R. Drysdale, 374.

Table of power of various incline engines. J. Brunlees, xxvi. 343.

"Use of locomotive power on gradients of 1 in 17, and curves of 300 feet radius in America." T. S. Isaac, xviii. 51.—Discussion: Z. Colburn, xviii. 63; T. S. Isaac, 64, 69; D. K. Clark, 65; P. W. Barlow, 66; C. H. Gregory, 66; R. Peacock, 67; Capt. Moorsom, 67, 69; J. Hawkshaw, 67; G. W. Hemans, 68; J. Cooode, 69; G. P. Bidder, 69.

"Working of steep gradients and sharp curves on railways." Capt. H. W. Tyler, xxvi. 310.—Discussion: Capt. H. W. Tyler, xxvi. 325, 388; J. B. Fell, 326; A. Alexander, 329; M. Cohen, 330; Sir C. P. Roney, 331; H. Conybeare, 334; C. H. Gregory, 340; J. Brunlees, 341, 394; W. Pole, 342; G. W. Hemans, 346, 387; W. Naylor, 347; W. Lloyd, 349; C. F. Beyer, 352; E. Woods, 352; C. B. Vignoles, 354; C. Reilly, 354; G. H. Phipps, 356, 380; F. J. Bramwell, 358, 380; P. J. Margary, 365; A. Doull, 367; R. F. Fairlie, 367; J. Abernethy, 370; J. A. Longridge, 371; W. I. Ellis, 372; E. A. Cowper, 376; R. P. Brereton, 378; W. L. Holt, 379; R. T. Mallet, 381; T. R. Crampton, 382, 384; E. A. Drew, 382; J. Hawkshaw, 382; G. R. Stephenson, 384; J. Clark, 385; Sir C. Fox, 386; J. W. Grover, 387; G. Edwards, 395.

Accrington incline, Engine on, by Mr. Fairbairn. C. R. Drysdale, xv. 359, 362.

Baltimore and Ohio railway: T. S. Isaac, xviii. 53, 54. Eight-wheel engines: M. Cohen, xxvi. 330.

Carstairs incline, engine on, Edinburgh and Glasgow railway. C. R. Drysdale, xv. 360.

Locomotives on steep inclines, working and performance of—*continued*.

- Central rail engines, by J. B. Fell: Capt. W. H. Tyler, xxvi. 313, 323, 326.  
 Central rail engines on the Mont Cenis railway: J. A. Longridge, xxviii. 257; W. Atkinson, 267.  
 Cornwall (West) railway. Capt. W. S. Moorsom, xviii. 67.  
 Crewe engines *versus* McConnell's engines, E. Woods, lii. 139.  
 Dainton incline, engines on, South Devon railway. Capt. W. S. Moorsom, xv. 365, 366, 368.  
 Devon (South) railway. Capt. W. S. Moorsom, xviii. 67; P. J. Margary, xxvi. 365.  
 Engerth engine, Semmering incline: C. R. Drysdale, xv. 354. With trailing wheels coupled, 357, 361; Capt. W. S. Moorsom, 365; G. P. Bidder, 373; —R. Crawford, xxiii. 11.  
 Fairlie's engine, performance of, Anglesea Central railway. C. D. Fox, xxvi. 56.  
 — J. Robinson, xxxvii. 13; E. Woods, 41; A. McDonnell, 54.  
 — *versus* twin or paired engines. G. B. Bruce, xxvi. 66; E. Woods, 67; P. R. Hodge, 70; F. J. Brainwell, 72; W. B. Adams, 75; R. Peacock, 77; C. D. Fox, 78.  
 Festiniog railway, performance on the: Capt. W. H. Tyler, xxiv. 361; G. England, 389.  
 Folkestone harbour branch, South Eastern railway. P. W. Barlow, xviii. 66.  
 Goods engine. J. Tomlinson, Jun., xxxvii. 44.  
 Lickey incline, performance of locomotives on: Capt. W. S. Moorsom, ii. (1843), 100; J. E. McConnell, 102, 105; —C. R. Drysdale, xv. 359; Capt. W. S. Moorsom, 365, 366, 368; A. S. Jee, 369.  
 Liège incline: G. P. Bidder, xviii. 70.  
 Madeley incline, London and North Western railway. E. Woods, xv. 370.  
 Manchester, Sheffield, and Lincolnshire railway. R. Peacock, xviii. 67.  
 Mountain-top incline, Virginia Central railroad. T. S. Isaac, xviii. 56, 64.  
 Oldham incline. Capt. J. M. Laws, x. 248; —W. Fairbairn, xv. 371; —J. Hawkshaw, xxvi. 383; Sir O. Fox, 386.  
 — J. Hawkshaw, xviii. 67.  
 One engine *versus* two engines coupled together. C. R. Drysdale, xv. 363; C. B. Vignoles, 368; E. Woods, 370; G. P. Bidder, 372.  
 — the St. Helen's railway. J. Cross, xxiii. 409, 438; W. Adams, 438.  
 Semmering incline, various engines. G. Berkley, xxviii. 272, 273.  
 Seven-feet gauge engines. R. P. Brereton, xxvi. 378.  
 Sheffield, inclined plane at. A. S. Jee, xv. 369.  
 Stephenson's engine, Giovi incline. C. R. Drysdale, xv. 358, 362; Capt. W. S. Moorsom, 365; W. Weallens, 373.  
 Tank engine. Brecon and Merthyr railway. W. Conybeare, xxvi. 335.  
 — Copiapo extension railway: W. Lloyd, xxvi. 350; E. Woods, 352.  
 — Great Indian Peninsula railway. G. Berkley, xxviii. 271, 274.  
 — on Kittybrewster incline, Aberdeen. D. K. Clark, xviii. 65.  
 — Mauritius railway: J. A. Longridge, xxvi. 371; —J. R. Mosse, xxviii. 239; W. Atkinson, 267; G. Berkley, 271.  
 — Navigation Incline, Taff Vale railway. Capt. H. W. Tyler, xxvi. 325, 389.  
 — Ottoman railway: R. T. Mallet, xxvi. 381; T. R. Crampton, 382.  
 — Vale of Neath railway. W. Naylor, xxvi. 348; W. I. Ellis, 372, 374.

**Locomotives on steep inclines, working and performance of—continued.**

- Uetli mountain railway. Prof. A. Fliegner, xl. 276.  
 Valparaiso and Santiago railway. Engines on the Paso Hondo, Tabou, and San Ramon inclines. W. Lloyd, xxiii. 393; xxvi. 350.  
 Whitstable branch, South Eastern railway. P. W. Barlow, xviii. 66.  
 "Wien-Raab" locomotive, on the Semmering incline of the Vienna and Raab railway. C. Manby, xv. 45.

**LOCOMOTIVES—BOILERS:—**

- Asht-pan damper, action of. D. K. Clark, xvi. 10.  
 Blast-pipe. "Action of the blast-pipe on locomotive engines." J. A. Longridge, lii. 129.—Discussion on the two preceding papers. J. A. Longridge, lii. 137, 138, 166, 175; T. R. Crampton, 187; F. J. Bramwell, 138, 148, 162; A. W. Makinson, 138; E. Woods, 138; D. K. Clark, 141; E. Reynolds, 159; G. H. Phipps, 162; W. Schönheyder, 163; V. G. Bell, 169; W. R. Browne, 170; L. Olrick, 171.  
 — Action of the blast-pipe. E. Reynolds, lii. 161; L. Olrick, 174.  
 Boiler. Action of the "long boiler." D. K. Clark, xii. 399; R. Stephenson, 416; J. E. McConnell, 419.  
 — Boilers of locomotives on the Stanhope and Tyne railway. T. E. Harrison, i. (1837), 38.  
 — Comparative performances of locomotive boilers and marine boilers. J. Field, xii. 416.  
 — "Experimental investigation of the principles of the boilers of locomotive engines." D. K. Clark, xii. 382.—Discussion: D. K. Clark, xii. 414, 423, 427; J. Hawkshaw, 414, 425; T. R. Crampton, 414, 424, 426; J. S. Russell, 415; R. Stephenson, 415, 430; J. Field, 416; J. E. McConnell, 417, 426; G. P. Bidder, 420, 427; G. H. Phipps, 425; Capt. W. S. Moorsom, 425; P. M. Parsons, 426, 429; C. May, 426; Dr. Lyon Playfair, 429.  
 — "Locomotive boilers and on fuels." J. Sewell, xii. 432.  
 — Performance of locomotive boilers on the Liverpool and Manchester railway, 1834. J. Parkes, (T.) iii. 25, 115.  
 — Qualifications of the ordinary locomotive boiler for burning coal: D. K. Clark, xix. 547.—Adaptations for burning coal: Gray and Chanter's system, xix. 551, 556; Dewrance's, 551; Dubs' and Douglas's, 551; Evans and Dubs', 552; Yarrow's, 552, 571; Jenkins's, 552; D. K. Clark's system, 552, 557, 566; E. Wilson's, 553, 556; Douglas's, 553; Frodsham's, 554; Hall's, 566, 567, 569; McConnell's, 581. Locomotives of the Valparaiso and Santiago railway: W. Lloyd, xxiii. 392.  
 — Table of results of performance of locomotive boilers. D. K. Clark, lii. 141; Formula, 145. Action of radiant heat in the fire-box, 147.  
 Combustion of coke in locomotive boilers. D. K. Clark, xii. 385, 428; R. Stephenson, 415; J. E. McConnell, 426; Dr. Lyon Playfair, 429; D. K. Clark, xvi. 3.  
 — of coal in locomotive boilers. D. K. Clark, xvi. 5; W. B. Adams, 40; —D. K. Clark, xlv. 262.  
 — Limit of rate of useful combustion in locomotive boilers.. D. K. Clark, xii. 403; E. Woods, lii. 139;—E. Reynolds, 160.  
 Corrosion of locomotive boilers by overstraining: F. Braithwaite, xiii. 465; J. Sewell, 471.

Locomotive boilers—*continued*.

- Corrosion of locomotive boilers. J. Hawkshaw, xv. 300; E. Humphrys, 300.
- Evaporative power, formulas and rules for. D. K. Clark, xii. 401, 423, 428; tables, 404; J. E. McConnell, 417, 426; table, 418; J. Hawkshaw, 425; J. Sewell, 434; tables, 435, 436.
- J. A. Longridge, lii. 101.
- Explosions of locomotive boilers. E. Woods, xv. 294; J. Hawkshaw, 299; C. H. Gregory, 301; R. Stephenson, 308.
- Feed-water, influence of the quality of, on efficiency. D. K. Clark, xvi. 12.
- purification of, for locomotives on the Thuringian railway, xli. 292.
- heating apparatus, by J. Beattie: D. K. Clark, xvi. 7. Its efficiency, 9, 10, 11; economy in American practice, 26.
- heaters: Beattie's, xix. 562; D. K. Clark's, 562; E. A. Cowper's, 580.
- Beattie's feed-pump and feed-water heating apparatus. J. England, xxiv. 213; W. G. Beattie, 251.
- Fire-box, staying of the. F. J. Bramwell, xxxvii. 26;—T. W. Woradell, xxxix. 93; F. J. Bramwell, 96; F. W. Webb, 97.
- surface *versus* tube surface. E. Woods, lii. 139.
- Heating surface, proportions of fire grate to. D. K. Clark, xvi. 13.
- Proportions of. E. Woods, xxxvii. 39.
- Incrustation. "On water for locomotive engines, and its chemical analysis." W. West, v. 182.—Discussion: J. V. Gooch, v. 195, 210; Dr. Ritterbandt, 198, 206, 210, 211; J. T. Cooper, 202; Prof. Brande, 202; F. Braithwaite, 203; S. M. Peto, 206; R. Stephenson, 206, 209, 214; A. Smee, 207, 209; J. S. Johnson, 207; J. Hawkshaw, 209; J. Farey, 213; A. Gordon, 214; C. May, 214; G. Lowe, 215; W. Thorold, 215.
- Körting's universal hot-water injector for locomotives, xlix. 314.
- Lining locomotive boilers with copper (to prevent incrustation and corrosion). P. F. Kupka, xl. 280.
- Priming by alkaline water from well at Camden town: R. B. Dockray, viii. 172; J. E. McConnell, 179.
- by grease in the boiler: R. Stephenson, viii. 183; I. K. Brunel, 183.
- Prevention of: J. E. McConnell, viii. 178; C. May, 179; Capt. W. S. Moorsom, 179; H. Oelert, l. 253.
- Safety-valves. "Application of volute springs to the safety-valves of locomotive boilers." J. Baillie, xv. 28.—Discussion: S. C. Kreeft, xv. 37; D. K. Clark, 38; C. E. Amos, 39; I. K. Brunel, 39; T. R. Crampton, 41, 42; J. Freeman, 41; D. Thomson, 42; B. W. Croker, 42; C. Manby, 43.
- applied to locomotives (Naylor's safety-valve). A. Courtin, xlii. 321.
- Construction and action of, for escape of steam. J. Beattie, xv. 28; D. K. Clark, 38; C. E. Amos, 39; I. K. Brunel, 39; T. R. Crampton, 41; D. Thomson, 42.
- "Tubing the boilers of locomotive engines." G. W. Buck, i. (1839), 32.
- Use of iron tubes in locomotives. E. Belleruche, liii. 340.
- Iron flue-tubes *versus* brass flue-tubes. E. Belleruche, liii. 341.
- See *Injector*; *Locomotives*—Life and wear.

## LOCOMOTIVES—BOILERS, COAL-BURNING:—

- Beattie's engine: D. K. Clark, xvi. 7; J. Beattie, 30, 41; T. R. Crampton, 31; A. Slate, 34; T. Webster, 35; G. P. Bidder, 36;—D. K. Clark, xix. 550, 556.

Locomotives—boilers, coal-burning—*continued*.

Boilers of locomotives, at the Philadelphia Exhibition of 1876. Capt. D. Galton, C.B., liii. 51.

— Pennsylvania railroad. C. D. Fox and F. Fox, xxxix. 69.

Brick arch in the ordinary fire-box to burn coal, by G. S. Griggs. Z. Colburn, xix. 575. By W. Lloyd, xxiii. 392.

Coal *versus* coke as fuel: D. K. Clark, xvi. 3, 6, 9, 11, 27, 30. By E. Woods and W. P. Marshall, 6; E. Woods, 27; J. Beattie, 28; T. R. Crampton, 30; H. Robertson, 31; W. B. Adams, 39.

Coal-burning boilers in the United States. Z. Colburn, xix. 572. Phleger's boiler, 573; Dimpfel's boiler, 578; Boardman's boiler, 574. Evaporative power, 575.

Cudworth's boiler. D. K. Clark, xix. 550.

McConnell's boiler. D. K. Clark, xix. 550, 556.

LOG, ship's. See *Meter*.

## LONDON CLAY:—

Cuttings in the London clay. See *Railway Cuttings and Embankments*.

Expansion of London clay. F. Braithwaite, iii. 147; C. H. Gregory, 148; J. Smith (Deanston), 151; J. Hawkshaw, 152; T. Sopwith, 152; F. Forster, 153; J. G. Thompson, 153; J. Simpson, 154.

Extent of the London clay. Dr. Buckland, ix. 15, 21.

Geological section of the London clay at New Cross. C. H. Gregory, iii. 138.

London clay formation. J. Prestwich, xxxvii. 111, 134, 137.

Pressure of London clay. A. E. Baldwin, xlix. 237. Tunnelling in the London clay, 238.

Slips in the London clay. J. Simpson, iii. 153.

"Some account of several sections through the plastic clay formation in the vicinity of London." W. Gravatt, (T.) i. 151.

LUBRICATION. See *Oils*.

## MACHINE TOOLS:—

Compressed-air, use of, for driving tools, by Messrs. Eastons and Anderson. H. Robinson, xlix. 20; W. E. Rich, 52.

Drilling machine (multiple) for girder work. J. Cochrane, xxii. 530; J. Hawkshaw, 534.

• Jacquard, or multifarious perforating machine. R. Roberts, xvii. 191.

Keyway (portable) cutter. E. Stötzer, liii. 372.

Lathes. P. R. Allen, lii. 214; drilling and boring machines, 221; boring machines, 223; planing machines, 217; slotting machines, 219; shaping machines, 218; milling machine, 226; emery wheels, 229; punching and shearing machines, 231; plate-bending and straightening machines, 234; riveting machines, 237; screwing and tapping machines, 224.

— Turning lathes. T. Sawyer, xvii. 180, 186, 190. Drilling and boring machines, 176, 189, 190, 191. Shaping, slotting, and grooving machines, 181, 187, 190, 192. Planing machines, 188, 191.

"Machine tools." P. R. Allen (1 plate), (S.) lii. 214.

— for the construction of iron dock-gates, Sevastopol. W. Shears, vi. 56.

"Manufacture of duplicate machines and engines." J. Fernie, xxii. 604. (2 plates.)

**Machine tools—continued.**

- Railway bars, description of a machine for cutting off." J. Glynn, i. (1839), 51.
- Railway tire. "A machine for bending or setting the tire of railway-carriage wheels." J. Woods, i. (1841), 99.
- Sawing rails. "Description of a sawing machine for cutting railway bars." J. Glynn, (T.) iii. 197.
- Screw-cutting lathe. Shanks and Co., ii. (1843), 144.
- "Self-acting tools employed in the manufacture of engines, &c." T. S. Sawyer, xvii. 176. (1 plate.)—Discussion on the two preceding papers: C. Manby, xvii. 191; W. F. Batho, 191; J. Whitworth, 192; R. Stephenson, 192; E. Humphrys, 192; H. Maudslay, 193; J. A. Ransome, 194. Shavings, form of, removed in planing metal. Dr. G. H. Judenfiend-Hulsee, liii. 375.
- "Shearing, punching, riveting and forging machinery." T. S. Sawyer, xvii. 173. See *Hammers*, atmospheric; *Steam hammers*.

**MACHINES AND MACHINERY:—**

- Historical notice. Sir J. Rennie, v. 49.
- Depreciation and maintenance of machinery. G. L. Molesworth, xvii. 39.
- "Manufacture of duplicate machines and engines." J. Fernie, xxii. 604. (2 plates.)—Discussion: J. Fernie, xxii. 612, 613; F. J. Bramwell, 612; C. F. Beyer, 612; C. B. Vignoles, 613.
- "Progress of machinery in foreign countries, as recorded in the abstracts of Papers in the Proceedings during the years 1874-78." (S.) H. Bauerman, lv. 297.
- Dental carving, machine for. Mr. Tomea, iv. 250.
- Dressing millstones. On machinery for dressing millstones. H. Tresca, l. 238.
- Factories. Machinery for the production and transmission of motion in the large factories of East Lancashire and West Yorkshire. (S.) G. W. Sutcliffe, lviii. 227.
- Hunter's stone-boring machine. L. Carnegie, ii. (1842), 146—Discussion: L. Carnegie, 146; C. B. Vignoles, 147; J. Smith (Deanston), 148; F. Braithwaite, 148.
- Jacquard. "Description of Martin's improved Jacquard machine." E. Laforest, xiii. 365.—Discussion: F. Lane, xiii. 368, 369; W. Newton, 368, 369; J. Locke, 368; J. Hawkshaw, 369; C. May, 369.
- Measuring machine for determining minute differences of length, by J. Whitworth, x. 325.
- Printing. "On printing machines, especially those used for printing the 'Times' newspaper." Prof. E. Cowper, ix. 409.
- Theatres. "Description of Stephenson's theatre machinery." J. B. Birch, i. (1841) 153.

**MAGNETS AND MAGNETISM:—**

- Bar magnets. A. L. Holz, xl. 363.
- Distribution of magnetism at the surface of magnets. MM. Trève and Durassier, xlvii. 416.
- Experiments on the artificial imitation of native platinum magnets. M. Daubrée, xli. 339.

**Magnets and magnetism—continued.**

Influence of temperature on magnetisation. J. M. Gaugain, xlv. 377.

Magnetic impenetrability of iron. J. Jamin, lviii. 405.

Magneto-induction machine. Dr. E. Zetesche, xlii. 435.

New source of magnetism. D. Tommasi, xli. 338.

**MAGNETO-ELECTRIC MACHINES.** See *Electric light Machines*; *Electro-metallurgy*; *Lighthouse illumination*—*Electric light Machines*.

**MALTING**, pneumatic. J. A. Barral, xlv. 341.

**MANBY TESTIMONIALS**, xvi. 479; xlvii. 190.

**MANOMETER:—**

"Description of a new metallic manometer and other instruments for measuring pressures and temperatures." E. Bourdon, xi. 14. (1 plate.)

—Discussion; I. K. Brunel, xi. 22; Sir E. Belcher, 22; J. Simpson, 22; W. Pole, 22.

Manometer for high pressures. L. Cailletet, xlviii. 340.

Pressure gauge. A. King, ii. (1843), 192.

"Thermometric steam-gauge." A. J. Adie, i. (1838), 15.

**MANURE:—**

Ammonia, use of, as manure in soils: J. Parkes, ii. (1842), 68; J. Bethell, 68; J. J. Hawkins, 68.

Grätz phosphate manure manufacture. Prof. H. Schwarz, xlii. 371.

Guano deposits, Peruvian. A. Durand-Claye, xlii. 369.

Gypsum, use of, as manure: J. J. Hawkins, ii. (1842), 68; J. Parkes, 69.

Sulphate of ammonia, from gasworks. A. A. Croll, iii. 296; G. Lowe, 301; Prof. Graham, 302; J. Bethell, 303.

See *Sewage manure*.

**MAPPING**, model:—"On the construction of model maps, as a better mode than sectioplanography for delineating the drainage and agricultural improvements of a country, or projected lines of railways, canals, &c." J. B. Denton, ii. (1842), 155.

**MAPS:—**

Canal, Exeter, in the reign of Queen Elizabeth. P. Chilwell de la Garde, iv. 90; in 1828, J. Green, iv. 102.

—Great North Holland. G. B. W. Jackson, vi. 134.

—Isthmus of Panama. Lt.-Col. J. A. Lloyd, ix. 80; F. M. Kelley, xv. 410.

—Isthmus of Caragua: inter-oceanic canal. J. Glynn, vi. 426.

—India. Sketch map of canals; Northern India. Col. W. H. Greathed, xxxv. 164.

—Soonkésala. Sketch map of Madras. J. H. Latham, xxxiv. 88.

Canals, irrigation, South of France. G. Wilson, li. plate 5.

Chesil Bank. See *England* (p. 157).

Cities and towns, Bristol: sewerage. J. Green, vii. 104.

—London: main drainage. J. W. Bazalgette, xxiv. 314.

—Middlesbrough-on-Tees, with new dock and railway. G. Turnbull, v. 254.



Maps—*continued*.

- Coal-fields. Map of the United Kingdom: coal measures. E. Bainbridge, xxx. 404.
- Sketch map of the Yorkshire and Derbyshire coal-field. Prof. E. Hull, xlix. plate 4.
- Corsica, eastern coast, lagoons. D. T. Ansted, xxviii. 306.
- Denmark, with Schleswig and Holstein. J. Paton, xxi. 446.
- Docks at Liverpool and Birkenhead. Plan. J. Ellacott, xxviii. 534.
- — Plan. J. N. Shoolbred, xlv. plate 4.
- Middlesbrough. G. Turnbull, v. 254.
- Drainage of land, Ancholme Level, in 1867-68, Sir J. Rennie, iv. 192.
- Bedford Level: arterial drainage. R. B. Grantham, xix. 86.
- Forest of Hainault, Essex, 1859: arterial drainage. R. B. Grantham, xix. 86.
- Middle Level. J. Hawkshaw, xxii. 508.
- Fens of Lincolnshire: River Witham. W. H. Wheeler, xxviii. 80. Estuary, 80.
- England and Wales: floods of 1875. G. J. Symons, xlv. plate 1.
- East coast, between Spurn Point and Flamborough Head. R. Pickwell, li. plate 4.
- Sketch maps, Thames to the Wash. J. B. Redman, xxiii. 224.
- South coast. Old maps of localities on the south coast. J. B. Redman, xi. 204.
- Chesil Bank. J. Prestwich, xl. plate 3.
- West Bay and Chesil Bank. J. Coode, xii. 546.
- English Channel. Charts showing the depths of the water, and the nature of the bottom. J. T. Harrison, vii. 358.
- See *Harbour, Alderney (below)*; *Straits of Dover* (p. 159).
- Europe, telegraph system of. H. C. Förde, xxi. 541.
- France, railways in 1837. J. Locke, xvii. 152.
- Friesland. Traditional map of North Friesland. J. Paton, xxi. 446.
- Harbour, Alderney, and English Channel. L. F. Vernon-Harcourt, xxxvii. 78; Alderney and harbour, 78.
- Greenore and Carlingford Lough. J. Barton, xlv. plate 4.
- Holyhead, and Holyhead mountain. H. Hayter, xlv. plate 2.
- Kurrachee, 1858 and 1874. J. Brunton, xxii. 474—W. H. Price, xliii. plate 1.
- Ostia, and other ancient ports on, and near the Tiber. Sir J. Rennie, iv. 202.
- India, railways in 1873. W. T. Thornton, C.B., xxxv., 228.
- upper. Scinde railway and Kurrachee harbour. J. Brunton, xxii. 474.
- Irrigation, south of France. Canals in the Department of the Bouches du Rhône. G. Wilson, li. plate 5.
- Japan, lighthouses: sketch plan. R. H. Brunton, xlviii. plate 1.
- railways. W. F. Potter, lvi. plate 1.
- Lagoons, Corsica, eastern coast. D. T. Ansted, xxviii. 306.
- Map of the deltas of the Rhone. D. T. Ansted, xxviii. 306; lagoons, 306.
- on the south-east coast of Ireland. G. H. Kinahan, xlv. plate 7.
- Lighthouses, Japan. Sketch plan of Japan. R. H. Brunton, xlvii. plate 1.

## Maps—continued.

- Lighthouses, Red Sea. Chart of the northern part of the Red Sea. W. Parkes, xxiii. 24.
- Mauritius railways. J. R. Mosse, xxviii. 256.
- Mineral districts, Spain, Bilbao. F. C. Barron, li. plate 7.
- New Zealand. Map of the Province of Canterbury. E. Dobson, xxix. 122.
- North Sea. J. Murray, xx. 334.
- Frith of Murray. J. Murray, xx. 334.
- Port of Ipswich. See *River, Orwell* (*below*).
- Port of London. See *River, Thames* (p. 159).
- Queensland, railways. R. C. Patterson, lvi. plate 2.
- Railways, Australia, South, railways. R. C. Patterson, lvi. plate 2.
- Brazil. São Paulo. D. M. Fox, xxx. 56.
- France, 1857. J. Locke, xvii. 152.
- India, 1873. W. T. Thornton, C.B., xxxv. 228.
- — Map of Upper India: Scinde railway; Kurrachee and harbour; General plan of the railway; Sketch map showing distances from Aden. J. Brunton, xxii. 474.
- Japan. Map of Central Japan. W. F. Potter, lvi. plate 1.
- Mauritius. Map of the island of Mauritius. J. R. Mosse, xxviii. 256.
- Queensland. Map of Queensland, &c.: South Australian railways. R. C. Patterson, lvi. plate 2.
- Rainfall. Flood-maps of England and Wales, in 1875. G. J. Symons, xlv. plate 1.
- River Bann, Lough Island, Reavy and Corbet Lough: Bann reservoirs, Ireland. J. F. Bateman, vii. 274.
- Clyde, 1872. J. Deas, xxxvi. 152. Plans of the harbour of Glasgow, in 1800, 1840, and 1872, 152.
- Danube, delta. Sir C. A. Hartley, xxxvi. 224.
- Ganges. Sketch map of the delta; the rivers Hooghly and Mutla. J. A. Longridge, xxi. 24.
- Hooghly. See *Ganges* (*above*).
- Humber, charts of the outfall. W. Shelford, xxviii. 492.
- Lea, navigation. N. Beardmore, xiii. 250.
- Mersey and its estuaries. J. N. Shoolbred, xlvi. plates 3 to 7.
- Meuse. See *Saône* (*below*).
- Mississippi. Water communication in North America; with the course of the Mississippi and the Ohio. Sir C. A. Hartley, xl. plates 6 and 7.
- Moselle. See *Saône* (*below*).
- Mutla. See *Ganges* (*above*).
- Nerbudda. Map of a portion of the Nerbudda valley. A. C. Howden, xxvii. 226.
- Newry, navigation. Sir J. Rennie, x. 290.
- Ohio. See *Mississippi* (*above*).
- Orwell. Estuaries of the Orwell and the Stour, 1845–59. G. Hurwood, xx. 18.
- Rhone, lagoons. D. T. Ansted, xxviii. 306.
- Saône, basins of the Saône, Moselle, and Meuse: Eastern Canal of France. W. B. Dawson, lv. plate 7.
- Stour. See *Orwell* (*above*).
- Tees, Cargo Fleet to Tod Point. Jos. Taylor, xxiv. 70, 76.

**Maps—continued.**

- River Thames. J. B. Redman, xlix. plate 2.  
 ——— embankments. E. Bazalgette, liv. plate 1.  
 ——— sewage question. C. N. Bazalgette, xlviii. plate 6.  
 ——— upper : geological map of the watershed. Rev. J. C. Clutterbuck, xxii. 352.  
 ——— Tyne, Newcastle to Tynemouth, 1813 and 1854. W. A. Brooks, xxvi. 420.  
 ——— Wear. Mouth of the river Wear, from 1819 to 1846. J. Murray, vi. 282.  
 Sea embankments. Denmark, with Schleswig-Holstein. J. Paton, xxi. 446.  
 ——— Romney Marsh : Dymchurch Wall. J. Elliott, Jun., vi. 482.  
 Sewerage, Bristol. J. Green, vii. 104.  
 ——— London. J. W. Bazalgette, xxiv. 314; C. N. Bazalgette, xlviii. plate 6.  
 ——— Paris : plan of Paris sewerage. F. Target, liii. plate 10.  
 Spain : mineral districts of Bilbao. F. C. Barron, li. plate 7.  
 Steam navigation. Sketch map of the world : ocean steam navigation. J. Grantham, xxix. 160.  
 Straits of Dover. Geological map of the Straits of Dover. J. Prestwich, xxxvii. 110.  
 Telegraph system of Europe : Malta and Alexandria telegraph. H. [C. Forde, xxi. 514.  
 Water supply, Bombay. Sketch map of India ; harbour of Bombay ; island of Salsette. H. Conybeare, xvii. 568.  
 ——— Dublin. Sketch plan of Dublin waterworks. P. Neville, xxxviii. plate 17.  
 ——— Geelong. Sketch map, Geelong water supply, Victoria, Australia. E. Dobson, lvi. plate 5.  
 ——— London. Hydrogeological map of the chalk-water system. J. Lucas, xlvii. plate 3.  
 ——— Nágpúr. Sketch plan of Nágpúr waterworks. A. R. Binnie, xxxix. plate 1.  
 ——— Yorkshire. Chalk-water system, Yorkshire. J. R. Mortimer, lv. plate 9.

**MARINE ENGINES AND BOILERS:—**

- Historical notice. A. Holt, li. 5; E. A. Cowper, 61; G. R. Stephenson, 79; F. J. Rowan, 108.  
 "Certain points in the construction of marine boilers." J. S. Russell, xi. 390.  
 ——— Discussion : see P. H. Boutigny's Paper (*Steam Boilers*, p. 303).  
 Coal powdered as a fuel in marine boilers. T. R. Crampton, lii. 137.  
 Round coal *versus* powdered coal, 137.  
 Combined vapour. "On the performance of the screw steam ship '*Sahel*,' fitted with Du Trembley's combined vapour engine, and of the sister ship '*Oasis*,' fitted with steam engines worked expansively, and provided with partial surface-condensation." J. W. Jameson, xviii. 233. (1 plate.)  
 ——— Discussion : J. P. Joule, xviii. 253; G. Rennie, 253; C. W. Siemens, 256, 290; W. R. Grove, Q.C., 259; H. Hensman, 260; F. J. Bramwell, 260; E. A. Cowper, 267, 283; C. Greaves, 268, 287; E. Humphrys, 271; A. Murray, 271; R. Stephenson, 272, 274; S. C. Homersham, 273; W. J. M. Rankine, 274; J. Dinnen, 275; J. S. Russell, 279; L. E. Fletcher, 281; M. du Trembley, 290; J. F. Spencer, 292; J. W. Jameson, 294; J. Locke, 294.

Marine engines and boilers—*continued.*

Combined vapour engines and boilers of the 'Du Trembley' steamer. G. Rennie, xviii. 253.

Compound engines, introduction of, in steamers. A. Holt, li. 5, 71; leading types, 6; G. B. Rennie, 104.

— marine engines, introduced by John Elder. A. Holt, li. 6; J. S. Russell, 22; J. L. K. Jamieson, 63; E. de Russett, 89; D. Hebson, 96.

— Performance of the engines of the 'Ceylon,' 'Poonah,' and 'Indus,' with single engines and compound engines. E. de Russett, li. 86.

— Performance of the 'King Coal' with single engines, and the 'Glenmanna' with compound engines. F. C. Marshall, li. 98.

— Best form of. F. C. Marshall, li. 100.

— Compound and non-compound marine engines (comparative trials on board the steamer 'Bache'). C. E. Emery, xl. 292.

— Efficiency of steam worked expansively in the compound engines of the 'Cher.' B. F. Isherwood, liv. 335.

— Single *versus* double or compound marine engines. E. Reynolds, li. 14; J. S. Russell, 124; J. F. Flannery, 25; J. R. Ravenhill, 52; Admiral Selwyn, 59; E. A. Cowper, 63; J. L. K. Jamieson, 63; J. McF. Gray, 68; A. Holt, 71; E. de Russett, 86, 89; D. Hebson, 96; F. C. Marshall, 97; R. E. Middleton, 102; G. B. Rennie, 105; R. Sennett, 120; A. Holt, 128.

Compressed-air blast for steam boilers. L. E. Bertin, li. 324.

Corrosion of steam boilers supplied with feed-water from surface condensers. D. Stapfer, xlvii. 372.

— On a particular cause of corrosion in steam boilers. V. Wartha, xlvii. 374.

— Corrosive action of various waters on iron. D. Phillips, liv. 166; jet-condenser water *versus* surface-condenser water, 169.

— of fatty acids. D. Phillips, liv. 171.

— Cause of corrosion in marine boilers. D. Phillips, liv. 170; F. J. Rowan, 174.

— Preventives of corrosion:—zinc. F. J. Rowan, liv. 174. Chemicals and scaling: F. J. Rowan, 174.

— Corrosion of steam boilers using distilled water, by grease. E. A. Cowper, xxvii. 576.

— Corrosion of marine boilers. Admiral Selwyn, li. 59; J. Mackenzie, 97.

Effect of distilled water on the boilers of the 'Megæra' and the 'Sirius.'

J. Dinnen, xviii. 278.

Efficiency of expansive working of the steam. E. Humphrys, xvi. 338, 361; F. J. Bramwell, 361; G. P. Bidder, 369.

Evaporative performance of a marine boiler at Wigan. D. K. Clark, xlv. 259.

— of a marine boiler. B. F. Isherwood, lvii. 348.

Experiments on a marine boiler at Newcastle-on-Tyne. J. A. Longridge, xix. 469, 576;—D. K. Clark, xlv. 248.

Factors of safety for marine boilers. T. Gray, li. 29; T. W. Trail, 31; A. Holt, 75; W. Brock, 84; P. Samson, 114, 118; R. V. J. Knight, 130, 134.

Fatty matter, action of, in steam boilers. G. Pereyra, lvii. 347.

Fire-grate, ratio of, to indicator power. E. Humphrys, xvi. 363.

Frictional resistance of marine engines. W. Froude, li. 40; J. R. Ravenhill, 52; J. McF. Gray, 69.

Marine engines and boilers—*continued*.

- Fuel, average consumption of, per indicator horse-power in 1859. J. F. Spencer, xviii. 292.
- "High-pressure steam, employment of, working expansively in marine engines." J. Seaward, viii. 304.—Discussion: J. S. Russell, viii. 305; G. Rennie, 307; C. Fox, 307; J. Field, 308, 309; J. Farey, 308; S. C. Homersham, 308; T. B. Crampton, 308; J. Perkins, 309.
- Horse power, nominal. See *Steam Engines*.
- Incrustation of marine boilers: J. B. Huntington, xii. 507; Dr. Ritterbandt, 519.
- Dr. Ritterbandt's process (muriate of ammonia) for preventing. J. V. Gooch, v. 196;—Dr. Ritterbandt, xii. 519.
- Indicator-diagrams of marine engines, utility of. A. Holt, li. 7, 74; E. Reynolds, 15; C. W. Merrifield, 17; C. Lamport, 19; J. F. Flannery, 26; G. H. Phipps, 50; J. McF. Gray, 69; G. R. Stephenson, 79; E. de Russett, 85.
- Long and short-stroke engines. "Remarks on the comparative advantages of long and short connecting-rods, and long and short-stroke engines." J. Seaward, i. (1841), 53.
- Lubrication with neutral oils in steam engines with surface condensation. O. Allaire, lii. 365.
- Marine boilers *versus* locomotive boilers. P. Samsen, li. 116; A. Holt, 129.
- Marine rectangular boiler, J. Grantham, xxix. 131.
- Paddle-wheels, slip of. E. Humphrys, xxii. 599.
- American paddle-wheel engines. A. Holt, li. 5; J. D'A. Samuda, 13.
- Practice in marine engines, 1869-70. J. Grantham, xxix:—Boilers, 131; superheated steam, 132; expansive working, 132; surface-condensers, 133; speed of piston, 133; condenser, 134; engines for screw-propellers, 135.
- Purification of greasy water by solution of lime. MM. Hétet and Risbec, lv. 400.
- Requirements for marine boilers. J. S. Russell, viii. 305; G. Rennie, 307; J. Field, 309.
- Report of the trials of the steam machinery of the U.S. Revenue steamers 'Rush,' 'Dexter,' and 'Dallas.' C. E. Emery, xli. 296.
- "Salt water, observations on, and its application to the generation of steam." J. B. Huntington, xii. 506.—Discussion: J. B. Huntington, xii. 518; Dr. Ritterbandt, 518.
- Instruments for gauging the saltness of brine. Salinometer: J. B. Huntington, xii. 509. How's salinometer: 518. Seaward's salt gauge, xii. 512. Siphon gauge, by J. S. Russell, 513.
- Safety-valves, spring, on marine boilers. R. Bruce Bell, li. 34; J. Quelch, 35; J. R. Ravenhill, 57.
- rule for, area of. A. Holt, li. 129.
- Sight-tubes for marine boilers. C. W. Williams, ii. (1842), 154.
- Superheated steam:—Watermen's company, 'Osprey': G. J. Parson, xix. 473. General Steam Navigation Company: W. Beardmore, xix. 474.
- Economy by superheating steam. J. Dinnen, xviii. 277.
- Ordinary superheated steam. Economical results of performance of Peninsular and Oriental Company's steamers, 'Ceylon,' 'Alhambra,'

Marine engines and boilers—*continued*.

- 'Nepaul': E. Humphrys, xix. 470, 474. Intercolonial Royal Mail Company's steamers: J. Topham, xix. 472; G. Rennie, 478.
- Superheated steam. Mixed steam: saturated and superheated. "On combined steam." The Hon. J. Wethered (U.S.), xix. 462.—Discussion: Hon. J. Wethered, xix. 468, 485; J. A. Longridge, 468; A. O. Hobbs, 469, 483; E. Humphrys, 470, 473; D. Patridge, 471, 476; J. Topham, 472; G. J. Parson, 473; W. Beardmore, 474; T. Howard, 474, 476; C. May, 476; J. Dinnen, 476; G. Rennie, 478; O. W. Siemens, 479; L. E. Fletcher, 480; J. James, 482; C. Greaves, 482; E. A. Cowper, 483; W. H. Dorman, 484; G. P. Bidder, 487.
- Extent of surface and absorption of heat by superheaters. J. A. Longridge, xix. 469; A. O. Hobbs, 469; T. Popham, 472, 473. Superheater on board the 'Connaught': W. Watson, xxii. 597. Construction and duration of superheaters: E. Humphrys, xxii. 599.
- Practical advantages of mixture of ordinary and superheated steam. Hon. J. Wethered, xix. 462, 486, 487. Economical results of performance. Steamships: Hon. J. Wethered, xix. 464. H.M.S. 'Dee': Hon. J. Wethered, 468, 485; D. Patridge, 471, 476; J. Dinnen, 477. H.M.S. 'Radamanthus': J. Dinnen, xix. 478; G. P. Bidder, 488.
- Combined steam *versus* superheated steam. Hon. J. Wethered, xix. 463 to 466, 485; D. Patridge, 471; T. Howard, 474; J. Dinnen, 477; Siemens, 479; L. E. Fletcher, 480; E. A. Cowper, 484.
- *versus* ordinary steam in the engines of the 'Connaught,' &c. W. Watson, xxii. 593, 597.
- Surface condensation. Experiments on the condensing power of a condenser tube. J. P. Joule, xviii. 253.
- Efficiency of tube-condensing surface. L. E. Fletcher, xviii. 283; J. F. Spencer, 293.
- Trial of S. Hall's condensers on board H.M.S. 'Mogaea.' J. Dinnen, xviii. 278.
- its effect on boilers. J. R. Ravenhill, xxix. 168; A. Murray, 179, 193.
- utility of. F. J. Bramwell, xxix. 188; D. Thomson, 193.
- Surface-condensers. M. Audenet, xxxix. 399.
- Hétet's method of purifying the water from. E. Lacroix, xlv. 284.
- "Tubular boilers, results of the use of, or of flue boilers of inadequate surface, or imperfect absorption of heat." Admiral the Earl of Dundonald, xi. 388.
- Discussion: see P. H. Boutigny's Paper (*Steam boilers*, p. 303).
- Tubulous boilers. "The Construction of steam boilers, adapted for very high pressures." J. F. Flannery, liv. 123.—Discussion: see *Steam boilers* (p. 305).
- marine boilers:—Report of the Admiralty Committee. J. F. Flannery, liv. 127. Advantages, J. F. Flannery, 128, 140; J. S. Russell, 149.
- Disadvantages, E. A. Cowper, 142; W. E. Rich, 146; F. J. Rowan, 171.
- White-metal bearings. J. R. Ravenhill, li. 52.
- "'Alice,' (The), description of the engines on board the iron steam-tug." J. Patrick, i. (1840), 54.—Discussion: Ardaseer Cursetjee, i. (1840), 68.
- 'Briton,' performance of compound engine of H.M.S. E. A. Cowper, li. 62; G. B. Rennie, 106. H.M.S. 'Boadicea' and 'Bacchante': G. B. Rennie, li. 107. 'Thetis': F. J. Rowan, li. 108.
- 'Gorgon,' (The), engines. J. Seaward, i. (1841), 53.

**Marine engines and boilers—continued.**

- 'Great Britain,' four-cylinder engines of the. T. R. Guppy, iv. 159.  
 'Protonia,' boilers of the. J. F. Flannery, liv. 181, 139; E. A. Cowper, 144; J. A. Longridge, 145; F. J. Rowan, 174, 175.  
 'Valparaiso,' use of hot feed-water and dry steam in the engines of the, by Messrs. Randolph, Elder, and Co. D. K. Clark, xvi. 27.  
 See *Ships and Steam-vessels*; *Steam-boilers*; *Steam-engines*; *Tug-boats*; *Steam Navigation*.

**MARSHES.** See *Lagoons and Marshes*.**MASONRY, Load supported by:—**

- Ashlar masonry, in piers of bridges on the Bolton and Preston railway. A. J. Adie, ii. (1842), 177.  
 Brick chimney, Bolton. A. J. Adie, ii. (1842), 177.  
 Load supported by masonry. W. Radford, x. 240; R. Stephenson, 241; C. Cowper, 241, 242; G. B. Bruce, 244; J. Hawkshaw, 297, 299, 300.  
 Rubble walls, Edinburgh. A. J. Adie, ii. (1842), 177.  
 See *Foundations*—Supporting power, &c.

**MATCHES:—**The manufacture of Swedish matches. Prof. M. Schoenflies, liv. 396.**MATERIALS—durability and decay:—**

- "Decay of materials in tropical climates, and the methods employed for arresting and preventing it." G. O. Mann, xxiv. 1.—W. J. W. Heath, xxiv. 14.—Discussion on the two preceding papers: G. Berkley, xxiv. 18; J. Hawkshaw, 18, 19, 22; G. O. Mann, 10; J. Brunlees, 20; G. B. Bruce, 21; H. P. Burt, 22; A. M. Rendel, 22; G. Turnbull, 22; Gen. Sir A. Waugh, 24; Col. Sale, 25; C. H. Gregory, 25; C. B. Lane, 27; A. de Mornay, 29; R. Aitken, 30; J. Bethell, 30; F. Sheilda, 32; J. Calvert, 34; T. Webster, 36; J. G. C. Curtis, 36; J. M. Heppel, 36.  
 "Engineering philosophy: the durability of materials." E. Clark, xxvii. 554.—Discussion: E. Clark, xxvii. 564, 577; S. B. Boulton, 564; H. Conybeare, 566; G. Farren, 567; J. N. Shoolbred, 568; J. M. Heppel, 569; N. Beardmore, 569, 570; W. H. Barlow, 570; G. J. Symons, 570; H. S. Bethell, 570; W. Pole, 571; J. W. Bazalgette, 572; C. B. Vignoles, 572; A. Giles, 573; T. M. Johnson, 573; E. B. Webb, 574; J. Brunlees, 575; E. W. de Russett, 575; E. A. Cowper, 576; C. H. Gregory, 578.  
 "Remarks on Herm granite, by Frederick C. Lukis, Esq., of Guernsey, in reply to inquiries from the President; with some experiments made by the latter on the wear of different granites," communicated by J. Walker, (T.) i. 231.  
 Relative durability of wrought iron and cast iron. R. P. Brereton, xxxii. 157. See *Bridges*, Timber; *Eremacausis*; *Indiarubber*; *Iron*, and its derivatives; *Metals*, corrosion and decay of; *Permanent way*—Timber-sleepers; *Piles*, &c.; *Roofs*; *Timber*, preservation of.  
 Resistance of. See *Strength of materials*.  
 Strength of. See *Strength of materials*.

**MEASURES, WEIGHTS, AND MONEY:—**

- Brazil. Money, weights, and measures. W. M. Peniston, xxii. 387.

**Measures, weights, and money :—continued.**

Decimal gauge for sheet metal and wire. R. Briggs, liii. 373.

English weights, measures, and money. W. Brown, xiii. 299.

“French system of measures, weights, and coins, and its adaptation to general use.” J. Yates, xiii. 272, 320.—Discussion: W. Brown, xiii. 299, 316; Gen. Sir C. W. Pasley, 302; Prof. Airy, 304; J. Laurie, 310; Dr. J. E. Gray, 313; J. Morison, 316; G. Arbuthnot, 317; J. B. Smith, 328; W. Miller, 330; C. Manby, 336; T. W. Rathbone, 337; A. Davison, 339; S. A. Good, 339; A. Milward, 340; G. Sparkes, 344; C. Babbage, 345; G. P. Bidder, 347; J. Simpson, 348; J. Yates, 348.

— measures of length, introduction of, in England and India. T. Hawksley, xxxiii. 341, 342.

— metric system of weights and measures in the United States, lviii. 435.

Public standards of length. Sir G. B. Airy, xlvii. 168.

Report on a standard wire gauge, liii. 374.

United States currency. G. Arbuthnot, xiii. 319.

**MEASURING MACHINE**, for determining minute differences of length, by J. Whitworth, x. 325.

**MEMOIRS OF DECEASED MEMBERS AND OTHERS :—**

Abernethy, G., xxv. 522.

Adams, E., xli. 221.

Aher, D., iii. 14.

Aikin, A., xiv. 120.

Ainger, T. E., xvii. 107.

Aitchison, G., xxi. 569.

Allan, J., xxxix. 283.

Allcard, W., xxi. 550.

Anderson, H. G., xxviii. 618.

Anderson, W. D., ii. (1843), 13.

Appold, J. G., xxv. 523.

Armstrong, John, xiv. 147.

Armstrong, Joseph, xlix. 255.

Armstrong, T. W. de Butts, li. 261.

Atherton, C., xlii. 252.

Atkinson, J. S., xxv. 525.

Atkinson, T., v. 5.

Ayrton, F., xxxviii. 306.

Aytoun, R., xlvii. 299.

Baddeley, Lt.-Col. J. F. L., xxii. 634.

Bagnall, J., xxxvi. 281.

Bagnall, W., xxiv. 540.

Baird, F., xxx. 428.

Baker, W., lv. 315.

Balfour, J. M., xxxi. 200.

Ball, J., vii. 15.

Baly, P. P., xliii. 296.

Bampton, A. H., xvii. 92.

Banfield, E., xxxvi. 282.

Barber, E. S., xiv. 126.

Barber, W., xlvii. 300.

Barnes, J., xii. 140.

Barrett, J., xix. 185.

Bartlett, T., xxiv. 526.

Barlow, P., xxii. 615.

Barton, E., xlix. 265.

Batfield, B., xxiii. 504.

Battersby, J., l. 185.

Baxendale, J., xxxvi. 284.

Baxter, R. D., xlii. 259.

Baylis, H., xl. 245.

Beamish, R., xl. 246.

Beardmore, N., xxxvi. 256.

Beardmore, W., li. 268.

Beatty, J., xvi. 154.

Beattie, J. H., xxxiii. 204.

Beaufort, Rear-Ad. Sir F., xviii. 186.

Bell, E., xlii. 255.

Bell, T., xli. 223.

Bell, T., xlii. 261.

Bennett, S., xix. 186.

Benson, Sir J., xl. 251.

Berkley, J. J., xxii. 618.

Bethell, J., xxvii. 597.

Betts, E. L., xxxvi. 285.

Beuth, P. K. W., xiv. 123.

Beyer, C. F., xlvii. 290.

Bidder, G. P., lvii. 294.

Bidder, S. P. jun., liii. 284.

Biggsby, Lieut.-Gen., R.E., xxxix. 285.

Birch, J. B., xxii. 640.

Birkinshaw, J. C., xxxi. 202.



Memoirs of deceased members and others—*continued.*

- Black, G., xl. 253.  
 Blackadder, W., xx. 136.  
 Blackburne, J. G., xxxiii. 206.  
 Blackburne, J. W., xli. 210.  
 Blacklock, W. T., xxxi. 238.  
 Blackwell, T. E., xxiii. 481.  
 Blair, J. F., xlix. 258.  
 Blyth, B. H., xxvi. 556.  
 Bodmer, J. G., xxviii. 573.  
 Bolckow, H. W. P., lv. 325.  
 Booker-Blakemore, T. W., xviii. 202.  
 Borthwick, M. A., xvi. 108.  
 Boyd, J., lv. 326.  
 Bradbury, A. B., xlv. 224.  
 Bradshaw, G., xlii. 145.  
 Braidwood, J., xxi. 571.  
 Bridgeman, H. O., lviii. 839.  
 Braithwaite, F., xxvi. 560.  
 Braithwaite, J., xxxi. 207.  
 Bramah, F., i. (1841), 14.  
 Brandreth, Lt.-Col. H. R., R.E., viii. 12.  
 Brassey, T., xxxiii. 246.  
 Bremner, A., xxiii. 505.  
 Bremner, D., xii. 148.  
 Bremner, J., xvi. 113.  
 Brewster, Sir D., xxxi. 194.  
 Brookedon, P. N., x. 95.  
 Brogden, J., Jun., xv. 94.  
 Brooks, W. A., l. 172.  
 Brougham, Lord, xxx. 418.  
 Browne, E. F., x. 97.  
 Browning, A., li. 265.  
 Browning, T. G., xxxix. 286.  
 Brunel, I. K., xix. 169.  
 Brunel, Sir M. I., x. 78.  
 Brunton, B., xii. 149.  
 Brunton, W., xi. 95.  
 Buck, G. W., xiv. 128.  
 Buckham, T., liii. 285.  
 Buckland, Rev. W., xvi. 102.  
 Buddle, J., iii. 12.  
 Burgoyne, F.-M. Sir J. F., Bart. xxxiii. 192.  
 Burleigh, B., xlvii. 801.  
 Burnell, G. R., xxxi. 211.  
 Bury, T. T., xlviii. 269.  
 Cadett, W. J., li. 270.  
 Cammell, C., lvi. 288.  
 Campbell, C. J., xlv. 241.  
 Campbell, P. L., viii. 14.  
 Cantwell, R., xix. 186.  
 Capper, C., xxx. 465.  
 Carleton, F., viii. 15.  
 Carnegie, Capt. W. F. L., xx. 160.  
 Carpmæl, W., xxx. 430.  
 Casebourne, T., xxiv. 527.  
 Cato, C. J., xxvii. 599.  
 Cawley, C. E., l. 175.  
 Cayley, Sir G., Bart., xviii. 203.  
 Chapman, Lieut. W., xiv. 167.  
 Cheffins, C. F., xxi. 578.  
 Chisholm, J., xvi. 121.  
 Children, J. G., xii. 137.  
 Church, J., xli. 211.  
 Churchward, H. W., liii. 286.  
 Cini, T., xii. 151.  
 Clark, J., xxx. 481.  
 Clark, T., xvii. 96.  
 Clark, W. T., xii. 153.  
 Clarke, S., xlv. 225.  
 Clarke, W. W., lii. 270.  
 Clayton, R. S., xlvii. 297.  
 Clegg, S., Jun., xvi. 121.  
 Cleggram, W., xxiii. 485.  
 Cochrane, A. B., xxiii. 506.  
 Coddington, Capt. J. W., xiv. 165.  
 Colburn, Z., xxxi. 212.  
 Colby, Maj.-Gen. T. F., xii. 132.  
 Colley, T. L., xxx. 466.  
 Collinge, C., ii. (1843), 13.  
 Collins, J., xlii. 257.  
 Collina, W. W., lviii. 340.  
 Colquhoun, Col. J. N., xiii. 149.  
 Colt, Col. S., xxii. 636.  
 Comrie, A., xv. 96.  
 Conrad, F. W., xxxiii. 209.  
 Cooke, G. C., xlv. 228.  
 Cooper, J., xxii. 624.  
 Cooper, I. T., xxxiii. 251.  
 Coulthard, W., xxiii. 506.  
 Coulthard, W. R., xxviii. 618.  
 Cowen, G., xvii. 98.  
 Cowen, R., xxii. 638.  
 Cowper, C., xxi. 581.  
 Crane, G., vi. 5.  
 Crosley, W., xli. 224.  
 Crosley, J. S., lviii. 341.  
 Cubitt, B., viii. 10.  
 Cubitt, J., xxxix. 248.

Memoirs of deceased members and others—*continued.*

- Cubitt, T., xvi. 158.  
 Cubitt, W., xxiii. 507.  
 Cubitt, Sir W., xxi. 554.  
 Curll, W. H. R., xxv. 526.  
 Cursetjee, A. li. 271.  
 Curran, Lieut. J., xxviii. 619.  
 Currey, C., lv. 327.  
 Curtis, C. B., xlix. 266.  
 Daglish, R., xxvi. 561.  
 Daft, T. B., lv. 329.  
 Dale, T., xli. 212.  
 Dalrymple, G. S., xi. 99.  
 Davenport, E. G., xli. 225.  
 Davis, F. G., xxx. 467.  
 Dawson, R. K., O.B., xxi. 582.  
 De Bergue, C. L. A., xxxviii. 309.  
 Dees, J., xliii. 297.  
 Delaney, E. M. J., xxvii. 599.  
 Denison, Lt.-Col. Sir W., K.C.B.,  
     xxxiii. 251.  
 Dent, E. J., xlii. 156.  
 Denroche, C., xv. 103.  
 Despard, R. C., xxiii. 486.  
 Deville, J., vi. 5.  
 Dinnen, J., xxvi. 563.  
 Dixon, C. W., xxxvi. 288.  
 Dixon, E., liv. 280.  
 Dobson, G. C., xli. 214.  
 Dobson, S., xxxi. 217.  
 Dockray, R. B., xxxiii. 213.  
 Dodson, A. J., xlv. 243.  
 Donaldson, G. G., xix. 186.  
 Donkin, J., xiv. 180.  
 Doyne, W. T., lii. 270.  
 Dredge, J., xlix. 267.  
 Duncan, T., xxx. 431.  
 Dunlop, Capt. S. J., liv. 283.  
 Dunn, J. B., xl. 260.  
 Dunn, T., xxxvi. 288.  
 Dunn, T. E., liii. 282.  
 Dupin, Baron C., xl. 242.  
 Dutton, F. S., xlix. 268.  
 Dykes, D. S., xvii. 100.  
 East, F., xliii. 298.  
 Easton, A., xiv. 181.  
 Eborall, C. W., xxxix. 287.  
 Edgeworth, D. R., xxxvi. 264.  
 Edwards, H. H., xxii. 625.  
 Edwards, O. C., xlviii. 266.  
 Elliot, L., xxxi. 239.  
 Elliot, R., xli. 226.  
 Ellis, G., xvii. 107.  
 Ellis, H. S., liii. 287.  
 England, J. jun., liii. 283.  
 Enys, J. S., xxxvi. 290.  
 Errington, J. E., xxii. 626.  
 Evans, J., xxxviii. 309.  
 Evans, T., vii. 15.  
 Ewart, P., ii. (1842), 25.  
 Faber, C. W., lv. 330.  
 Fairbairn, Sir W., Bart., xxxix. 251.  
 Faraday, Dr. M., xxvii. 582.  
 Farey, J., xi. 100.  
 Field, A., xxxiii. 259.  
 Field, J., xxiii. 488.  
 Fishe, C. O., xxxi. 218.  
 Fisher, J., i. 186.  
 Flanagan, T. W., xx. 137.  
 Fletcher, H. A., xxi. 585.  
 Fenon, J., xxiii. 487.  
 Forbes, D., xlix. 270.  
 Forbes, Maj.-Gen. W. N., xx. 138.  
 Forsyth, J. C., lviii. 843.  
 Forrest, W. J., xxxviii. 286.  
 Forster, F., xii. 157.  
 Forster, T. E., xliii. 300.  
 Fortescue, H. E., xix. 173.  
 Fothergill-Cooke, Sir W., lviii. 358.  
 Fowke, Capt. F., R.E., xxx., 468.  
 Fowler, H., xiv. 133.  
 Fowls, S., viii. 11.  
 Fox, Sir C., xxxix. 264.  
 Francis, C. L., xxxviii. 311.  
 Fraser, A., xxxi. 239.  
 Fraser, Capt. E., xx. 163.  
 Freeman, J., xxxiii. 261.  
 Freeman, J. R., lii. 281.  
 Freeman, S. T., xxxiii. 261.  
 Frodsham, C., xxxiii. 263.  
 Galloway, J. A., x. 81.  
 Galwey, W., xlix. 259.  
 Gammon, W., xxxi. 240.  
 Gardner, R. B., xix. 188.  
 Gardner, T. W., xxxiii. 264.  
 Garrett, R., xviii. 188.  
 Geach, C., xiv. 148.  
 Gibb, A., xxvii. 587.  
 Gibb, J., x. 82.  
 Gibbs, J., xxiv. 528.  
 Gilbert, D., i. (1840), 12.

Memoirs of deceased members and others—*continued*.

- Giles, E., liii. 289.  
 Giles, F., vii. 9.  
 Giles, G., i. 177.  
 Ginty, W. G., xxvii. 589.  
 Gisborne, L., xxi. 586.  
 Glass, Sir R. A., xlii. 262.  
 Glinn, G. J. H., xli. 216.  
 Glynn, J., xxiii. 492.  
 Going, T. H., xlv. 221.  
 Goldwin, J., xxx. 434.  
 Gooding, W. O., xlv. 251.  
 Gordon, A., xxx. 435.  
 Gordon, Maj.-Gen. Sir J. W., R.E.,  
     xxxi. 241.  
 Gough, N., xiv. 152.  
 Graham, J., lvi. 284.  
 Grainger, T., xii. 159.  
 Grantham, J., xxxix. 266.  
 Gravatt, W., xxvi. 565.  
 Gray, T., xxxiv. 372.  
 Greaves, J. H., lvi. 289.  
 Gregory, Dr. O., ii. (1842), 12.  
 Green, James, ix. 98.  
 Green, John, xiii. 138.  
 Green, R. W. E., xlviii. 270.  
 Greenwood, T., xxxviii. 311.  
 Grève, A., xviii. 190.  
 Grey, Earl de, xix. 168.  
 Griffiths, Sir R., Bart., lv. 317.  
 Grissell, T., xxxix. 289.  
 Grose, D. G., xxx. 436.  
 Grundy, R., xx. 140.  
 Guest, Sir J. J., xii. 163.  
 Haden, G., xvi. 124.  
 Hakewill, H., xxxi. 245.  
 Hall, R., lii. 282.  
 Hambling, T. C., xxxviii. 313.  
 Hamilton, J., xxx. 470.  
 Handley, H., vi. 5.  
 Handyside, W., x. 85.  
 Hankey, W. A., xx. 134.  
 Hannay, R., xl. 261.  
 Hanson, C. A., xxxi. 246.  
 Harding, W., xv. 97.  
 Hardwick P., R.A., xxxiii. 215.  
 Harkness, J. McN., lv. 318.  
 Harris, J., xxxi. 219.  
 Harrison, G., xliii. 303.  
 Hartley, J. B., xxxiii. 216.  
 Hartley, Jesse, xxxiii. 219.  
 Hartree, W., xix. 174.  
 Hartwright, J. H., xxx. 437.  
 Harvey, N. O., xxi. 558.  
 Harwood, H. E., xxxviii. 313.  
 Haslett, C. A., xxxvi. 293.  
 Hawkins, C. W., xlii. 258.  
 Hawkins, J. I., xxv. 512.  
 Hawthorn, R., xxvii. 590.  
 Heath, W. J. H., xxx. 472.  
 Heinke, J. W., xxxi. 247.  
 Henderson, Capt. A., xxx. 472.  
 Henderson, Lt.-Col. G., R.E., xv. 100.  
 Hennes, G., xvii. 100.  
 Heppel, J. M., xxxvi. 265.  
 Hewett, D. P., xiv. 136.  
 Hick, B., ii. (1843), 12.  
 Highton, E., xix. 188.  
 Hildred, J., xlv. 228.  
 Hobbs, W. F., xxvi. 577.  
 Hocking, S., li. 274.  
 Hodgkinson, E., xxi. 542.  
 Hodgson, J., xviii. 204.  
 Hodgson, R., i. 178.  
 Holmes, J. A. H., xxxix. 290.  
 Holtzapffel, vii. 14.  
 Hoof, J., x. 97.  
 Hooper, E., xxxi. 248.  
 Hopkins, J. I., xxxix. 291.  
 Hopkins, R., xviii. 192.  
 Hopkins, T., viii. 11.  
 Horn, G. W., xxxviii. 314.  
 Horne, J., xvii. 102.  
 Houghton, G., xxxi. 249.  
 Houldsworth, J., xix. 189,  
 Hovenden, Lt.-Col. J. St. John, xxxi.  
     250.  
 Howard, T., xxxvi. 294.  
 Howden, A. C., xlii. 263.  
 Huddart, Capt. J., ii. (1842), 56.  
 Hughes, E., xix. 190.  
 Hughes, J. D'Urban, xl. 255.  
 Hughes, R., xx. 163.  
 Huish, Capt. M., xxvii. 600.  
 Hulbert, H. G., xxxiii. 265.  
 Humble, E. B., xli. 226.  
 Humphrys, E., xxvii. 592.  
 Hunter, W., xii. 161.  
 Hurwood, G., xxiv. 531.  
 Innes, Capt. W., R.E., xliii. 311.  
 Irvine, Lt.-Col. A., C.B., R.E., x. 87.

Memoirs of deceased members and others—*continued*.

- Jackson, Sir W., Bart., xlv. 252.  
 Jamieson, J. W., xx. 164.  
 Jee, A. S., xviii. 193.  
 Jeffcock, P., xxvii. 594.  
 Jeffrey, R., lii. 273.  
 Jobson, R., xxxvi. 296.  
 Johnson, T. M., xxxix. 268.  
 Johnson, W., xxv. 528.  
 Johnstone, W., xlix. 261.  
 Jones, E. W., l. 186.  
 Jones, J., xxiv. 532.  
 Jones, M., xxiii. 498.  
 Jones, R. W., xxviii. 608.  
 Jopling, C. M., xxiii. 508.  
 Kendall, Lieut. E. N., v. 5.  
 Kershaw, D., xxxvi. 268.  
 King, A., xxx. 440.  
 Kitson, F. W., lii. 277.  
 Lambert, W. B., xl. 258.  
 Lancaster, C. W., liii. 289.  
 Lane, C. B., xlviii. 266.  
 Lane, M., xxx. 441.  
 Lang, W., xxxvi. 297.  
 Lawrence, F., xxiv. 541.  
 Lawson, J., xxxviii. 315.  
 Lean, J., lii. 283.  
 Leigh, E., xlv. 229.  
 Lewis, J., xxv. 514.  
 Liddell, A., xv. 102.  
 Lipkens, A., vii. 10.  
 Lloyd, J. A., xiv. 161.  
 Lloyd, S., xxxix. 292.  
 Lloyd, T., xli. 217.  
 Locke, J., xx. 141.  
 Login, T., xxxix. 269.  
 Lovell, T., lvii. 310.  
 Lowe, G., xxx. 442.  
 Loysel, E., xxx. 475.  
 Lubbock, Sir J. W., xxv. 510.  
 Lushington, Ad Sir S., xlix. 275.  
 Lyndhurst, Lord, xxiii. 478.  
 Mackain, D., xix. 175.  
 Mackenzie, W., xi. 102.  
 Mackworth, H. F., xviii. 196.  
 Macleod, Lt.-Gen. D., xvi. 163.  
 Macneill, Maj.-Gen. W. G., xiii. 140.  
 McMaster, B., lii. 277.  
 Manby, E. O., xxiv. 533.  
 Manby, J. L., xxii. 629.  
 Manby, J. R., xxx. 446.  
 Marrable, F., xxxvi. 298.  
 Marshall, J. G., xxxviii. 317.  
 Martin, A., xxxiii. 223.  
 Martin, S. D., liii. 292.  
 Martley, W., xli. 221.  
 Matthew, J., xxx. 446.  
 Maule, G. B., x. 97.  
 May, C., xx. 148.  
 May, G., xxvii., 595.  
 May, J., xlv. 244.  
 McClean, J. R., xxxviii. 287.  
 McIntosh, D., xvi. 162.  
 McVeagh, J., xxi. 563.  
 Mead, Lt.-Col. C. J., xlvii. 302.  
 Meredith, G., xxv. 515.  
 Mesurier, C. J. Le, li. 266.  
 Meysey-Thompson, Sir H. S., Bart.,  
     xxxix. 293.  
 Miller, G. M., xxiv. 534.  
 Miller, J., xx. 149.  
 Miller, J. F., xvi. 166.  
 Milligan, R., xlvii. 298.  
 Mills, G., xix. 191.  
 Mitchell, A., ix. 103.  
 Mitchell, T. T., xxiv. 542.  
 Mitchell, W., ix. 104.  
 Moorsom, Capt. W. S., xxiii. 498.  
 Morel, E., xxxvi. 299.  
 Morris, W. R., xxxix. 271.  
 Morrison, R., xxxi. 220.  
 Murphy, H. de la Poire, xxxiii. 265.  
 Murray, A., xxxvi. 270.  
 Mushet, D., vii. 11.  
 Mylne, W. C., xxx. 448.  
 Mylne, W. C. Jun., xlv. 231.  
 Napier, F., xlv. 232.  
 Napier, R., xlv. 246.  
 Napoleon, Emperor, xxxviii. 284.  
 Neilson, J. B., xxx. 451.  
 Nelson, T. B., liv. 284.  
 Neville, H. J. W., xl. 259.  
 Newlands, J., xxxiii. 227.  
 Newton, W., xxi. 592.  
 Nicholson, R., xv. 93.  
 Nixon, C., xxxviii. 291.  
 Norris, R. S., liv. 281.  
 Northampton, Marquis of, xi. 93.  
 Noyes, P. A. H., xlv. 233.  
 Ogilvie, R., xlii. 263.  
 O'Hagan, H., xxx. 453.

Memoirs of deceased members and others—*continued*.

- Okell, J. S., xlix. 276.  
 Oldham, J., i. (1841), 14.  
 Oliver, E. H., xlv. 256.  
 Orkney, Earl of, l. 187.  
 Paddison, G., xxxi. 222.  
 Page, G. T., x. 91.  
 Page, T., xlix. 262.  
 Palmer, H. R., iv. 6.  
 Parke, J., xxxiii. 231.  
 Parnell, Sir H., ii. (1843), 11.  
 Parry, Rear-Admiral Sir W. E., xv. 90.  
 Parson, J., xli. 227.  
 Parsons, J. M., xxxi. 252.  
 Parsons, W., xvii. 103.  
 Paaley, Gen. Sir C. W., K.C.B., xxi. 545.  
 Patterson, T., xxxi. 224.  
 Peek, F., xliii. 317.  
 Peel, Sir R., x. 73.  
 Pellatt, A., xxxiii. 511.  
 Penn, J., iii. 13.  
 Penson, T., xx. 156.  
 Perdonnet, A., xxvii. 596.  
 Perkins, J., xxv. 516.  
 Perring, J. S., xxx. 455.  
 Pfeil, F. M., xxxviii. 320.  
 Pitts, J., xxxi. 253.  
 Plews, J., xxi. 564.  
 Pooley, H., lv. 831.  
 Pope, J., viii. 18.  
 Porter, J. F., xxvi. 582.  
 Potheary, G., xlv. 257.  
 Potter, J., xvii. 94.  
 Power, S., xxxiii. 236.  
 Preston, R. B., xx. 157.  
 Price, E., xxxiii. 267.  
 Prior, J. C., ix. 104.  
 Pritchard, D. B., xxxviii. 293.  
 Provis, W. A., xxxi. 225.  
 Radford, W., xiv. 136.  
 Rake, A. S., xxxiii. 270.  
 Rammell, C., xvi. 127.  
 Ransome, J., x. 99.  
 Ransome, J. A., xli. 228.  
 Ransome, R., xxv. 529.  
 Ransome, R. G., iii. 15.  
 Rastrick, J. U., xvi. 128.  
 Rawlinson, W., xliii. 318.  
 Bendel, J. M., xvi. 133.  
 Rennie, G., xxviii. 610.  
 Rennie, Sir J., xxxix. 273.  
 Benton, H., xi. 105.  
 Reynolds, F. C., xxx. 475.  
 Reynolds, J., vii. 12.  
 Rhodes, A., l. 187.  
 Rhodes, T., xxviii. 615.  
 Richardson, H. Y., xxxiii. 270.  
 Richardson, Dr. T., xxx. 476.  
 Rickman, J., i. (1841), 15.  
 Ritchie, R., xxxiii. 271.  
 Robe, Lieut.-Col. A. W., R.E., ix. 105.  
 Roberts, R., xxiv. 536.  
 Robertson, J., xlv. 234.  
 Robson, N., xxx. 456.  
 Roe, J., xxxix. 297.  
 Roget, Dr. P. M., xxx. 419.  
 Ronayne, J. P., xlv. 274.  
 Roper, R. S., xlv. 259.  
 Rose, Earl of, xxvii. 584.  
 Rothwell, P., ix. 100.  
 Rowles, H., i. (1841), 15.  
 Ruahton, J. R., xxxix. 278.  
 Ryan, T. T., xlviii. 272.  
 Salomons, Sir D., xxxviii. 321.  
 Samuel, J., xxxix. 280.  
 Samuelson, A., xxxviii. 295.  
 Sanderson, C., xxxi. 230.  
 Saunders, G. H., xvii. 105.  
 Sayce, W., xx. 166.  
 Scamp, W., xxvi. 273.  
 Scott, C. W., xxxiii. 512.  
 Scott, E. B., xlv. 276.  
 Seaward, J. xviii. 199.  
 Seaward, S., ii. (1843), 11.  
 Sherrieff, A. C., lii. 284.  
 Sherriffs, J., xxiv. 543.  
 Sibley, C. K., ix. 106.  
 Sibley, R., ix. 101.  
 Siebe, A., xxxvi. 301.  
 Simms, F. W., xxv. 519.  
 Simms, W., xx. 167.  
 Simons, Dr. G., xxxvi. 302.  
 Simpson, J., xxx. 457.  
 Simpson, W., xxiv. 539.  
 Slate, A., xx. 168.  
 Smallman, R., xxxvi. 278.  
 Smart, M. K., xvii. 104.  
 Smith, C. F. S., xxxiii. 621.  
 Smith, E. P., lii. 285.  
 Smith, Sir F. P., xl. 261.  
 Smith, J. (Deanston), x. 91.

Memoirs of deceased members and others—*continued*.

- Smith, Gen. Sir J. M. F., K.H., R.E.,  
xxxix. 298.
- Smith, J. P., xxi. 594.
- Smith, T. H., xxxi. 253.
- Smith, W., lvi. 289.
- Soames, P., xlv. 260.
- Sopwith, T., lviii. 345.
- Spencer, C. I., xliii. 304.
- Spiller, J., xxxviii. 296.
- Statham, T. H., xvi. 142.
- Steele, T. E., viii. 16.
- Stephenson, G., viii. 29.
- Stephenson, R., xix. 176.
- Stevenson, A., xxvi. 575.
- Stevenson, R., x. 94.
- Stirling, J., xlv. 221.
- Storey, T., xix. 182.
- Struvé, W. P. lii. 278.
- Stuart, W., xiv. 137.
- Swetenham, Major G., lv. 334.
- Sykes, W., xxxvi. 305.
- Sylvester, J., xli. 165.
- Synnot, R. H. I., xxxvi. 306.
- Tarrant, C., lii. 280.
- Taaker, J. H., xi. 109.
- Taylor, F. W., xliii. 318.
- Taylor, G., xlii. 265.
- Taylor, T. H., xxxi. 254.
- Telford, T. (T.) I., xiv.
- Tennant, C., i. (1839), 12.
- Terry, A., lvi. 290.
- Thom, R., vii. 7.
- Thompson, A., xxiv. 544.
- Thompson, G., xlv. 261.
- Thomson, J. G., xv. 158.
- Thomson, P., xlv. 235.
- Thomson, W., xiv. 152.
- Thorneycroft, G. B., xi. 110.
- Thorold, W., lv. 321.
- Tomkins, W. G., xxx. 460.
- Tolmé, J. H., lv. 319.
- Tooke, W., xxiii. 480.
- Townsend, G. B., xxxi. 254.
- Trubshaw, J., xiv. 142.
- Tscheffkine, Gen. C., xlv. 219.
- Turner, F. T., i. 181.
- Twynam, G. A., liii. 293.
- Valentine, A., xxxvi. 306.
- Vaughan, J., xxviii. 622.
- Vetch, Capt. J., R.E., xxxi. 255.
- Vignoles, C. B., xliiii. 306.
- Vint, H., xii. 167.
- Vulliamy, B. L., xiv. 155.
- Wait, J. H., xlv. 262.
- Walker, J., LL.D., xxii. 630.
- Walker, J. R., xxi. 567.
- Wallace, Dr. W., iii. 10.
- Ward, J., xxi. 567.
- Warren, J. N., xxi. 595.
- Washington, Rear-Ad. J., xxiii. 513.
- Watkins, F., vii. 15.
- Weallens, W., xxii. 633.
- Weaver, W., xxxi. 233.
- Webb, E. B., lvii. 312.
- Wellington, Duke of, xli. 126.
- Wells, Col. J. N., C.B., xiv. 159.
- West, F. W. I., xx. 159.
- West, W., xi. 112.
- Western, Col. J. R., xxxiii. 273.
- Wicksteed, T., xxxiii. 241.
- Wightman, A., xxv. 531.
- Wightman, W. F., lvi. 286.
- Wilkie, G., xvii. 106.
- Wilkins, R., xvi. 170.
- Wilks, C., xxxiii. 275.
- Williams, C. W., xxviii. 627.
- Williams, E. L., lvii. 815.
- Williams, Sir F. M., Bart., lv. 335.
- Willis, Rev. R., xli. 206.
- Wilson, Eng.-Gen. A., xxx. 461.
- Wilson, D., ix. 102.
- Wilson, J., xi. 113.
- Winteringham, H., i. 184.
- Wheatstone, Sir C., xlvii. 283.
- Whewell, Dr. W., xxx. 426.
- Whishaw, F., xvi. 143.
- Wood, N., xxxi. 236.
- Woodcock, W., xxxix. 299.
- Woodhouse, T. J., xvi. 150.
- Woodhouse, J. T., lv. 322.
- Woods, J., ix. 107.
- Woolbert, H. R., xlii. 265.
- Wolf, A., i. (1838), 9.
- Wordsworth, C. F. F., Q.C., 300.
- Wright, A., xix. 183.
- Wyatt, Sir M. D., xlix. 277.
- Wylie, H. J., xxxvi. 280.
- Wythes, G. E., xli. 232.
- Yarrow, T. A., xxxix. 282.
- Young, F. M., xx. 159.

**MENTAL CALCULATION** :—"On mental calculation." G. P. Bidder, xv. 251.

**MERCURY** :—

- Deposits of mercury ore in California. G. Rolland, lvii. 396.
- Influence of temperature on the specific heat of mercury, xviii. 357.
- Loss of mercury at Idria by volatilisation. E. Teubner, xlix. 367.
- New furnace for mercury ores. A. Pichler, li. 329.
- Notes on the treatment of, in North California. Prof. T. Egleston, xvii. 397.

**METALS** :—

- Melting point. On a new method of determining with precision the melting point of metals, as well as of other materials, which are bad conductors of heat. Prof. Dr. Himly, xlv. 336.
- Planing of metals. M. Tresca, xlii. 313.
- Steel-bronze. R. Paulus, xvi. 321.
- Treatment of ores of lead, copper, arsenic, zinc, sulphur, and silver. L. Grand, xlii. 345.
- Welding by gas. "On the autogenous uniting of lead and other metals." M. Delbruick, i. (1840), 27.
- See *Strength of materials*; *Copper*; *Iron*; *Steel*; *Tellurium*; *Tin*.

**METALS: CORROSION AND DECAY OF** :—

- Air in water as a corrodent. J. Farey, iv. 331.
- Brass centrifugal pumps in sea water, Marseilles graving dock. T. Hawthorn, xxiv. 157.
- Corrosion of gun-metal by gas. B. L. Vulliamy, v. 361.
- "Corrosion of metals." R. Adie, iv. 323.—Discussion: J. Farey, 331; G. Lowe, 332; Sir J. Rennie, 333.
- Influence of humidity on durability of metals. E. Clark, xxvii. 556.
- Salt water as a preventive of corrosion. R. Adie, iv. 323, 327.
- See *Iron, cast*; *Iron, wrought*; *Steam-boilers*; *Steel*.

**METEORITE**, description of, which fell in Dickson Co., Tennessee. L. Smith, xlii. 365.

**METERS** :—

- "Current-meter, a deep-sea current-indicator, and an improved ship's log." (S.) B. T. Moore, xlv. 220. (2 plates.)
- Merits of the ordinary ship's log. J. G. C. Curtis, iv. 173; Captain Hoeken, 175. Massey's log, 175.
- Use of the screw-current meter in determining the discharge of streams. F. Exner, xliii. 352.
- See *Gas meters*; *Water meters*.

**METRIC SYSTEM**. See *Measures*, weights, and money.

**MICA** :—

- Divisibility of mica. J. Glynn, i. (1840), 44.
- "Use of mica as a substitute for glass in the windows of workshops." J. Glynn, i. (1840), 43.

**MICROPHONE**: Physical action of the microphone. Count du Moncel, lv. 437.

**MIDDENS.** See *Sewage*.

**MILLS.** Explosion of the flouring mills at Minneapolis, Minnesota. S. F. Peckham, lv. 407.

— See *Factories* and mills.

**MILLSTONES:**—

Machinery for dressing millstones. H. Tresca, l. 238.

Ventilation of millstones in flour mills. H. Fischer, lii. 386.

**MINERAL PRODUCTION:**—

Austria, mining and metallurgical produce of, in 1875, xlv. 356.

— Mineral production of, in 1877, lv. 426.

Italy, mineral industry of. G. Axerio, xlii. 360.

Madrid, mineral wealth of the province of. A. Piquet, xlvii. 384.

Prussia. Mineral produce of the Prussian States in the year 1875, xlv. 359; 1876, l. 282; 1877, liv. 374.

Russia, mineral production of, in 1876, lv. 427.

Santander, mineral wealth of the province of. A. Piquet, lii. 311.

See *Coal trade*.

**MINERAL WATERS,** origin of. Prof. Ansted, xxvii. 24.

**MINERALS, SHIPMENT OF:**—

“Hydraulic apparatus for loading minerals from railway wagons into ships.” (S.) W. H. Thomas, xlv. 217.

Pneumatic drying machine for minerals. Herren Riehn, Meinicke and Wolf, liii. 387.

Spout system of the Bilbao Iron Ore company, Sestao harbour. F. C. Barron, li. 244.

— by gravitation: Huelva pier of the Rio Tinto railway. T. Gibson, liii. 130, 140; J. Dixon, 161.

— Somorostro mines, E. Bourson, lvii. 384.

See *Coals*, shipment of.

**MINERALS** and woods of the Isthmus of Panama. E. Hopkins, ix. 77; Lieut.-Col. Lloyd, 84.

**MINES:**—

Historical notice of mining. Sir J. Rennie, v. 108.

Atmospheric system of raising minerals for the working of mines of all depths. Z. Blanchet, lvii. 380.

High-pressure gas in mines. A. Wright, 8; F. A. Winsor, 12; T. Hawksley, 13.

“Lighting mines by gas.” A. Wright, xvii. 1.—Discussion: A. Wright, xvii. 8, 14; G. R. Burnell, 9; Mr. Hartnum, 11; J. A. Longridge, 11; F. A. Winsor, 12; E. M. Perkins, 12; T. Hawksley, 13; R. Stephenson, 15.

— Balleswidden (Cornish) mine. A. Wright, xvii. 4, 14; R. Stephenson, 15.

— in Belgium. G. R. Burnell, xvii. 9.

— Candles *versus* gas in mines. A. Wright, xvii. 4, 9; Mr. Hartnum, 11. Lorimier man-engine. F. Goebel, lviii. 411.

“Machine for raising and lowering miners, description of a.” J. Taylor, ii. (1843), 193.



**Mines—continued.**

New man-engine at Clausthal, xlvi. 340.

— at Pribram. V. Mayer, liv. 340.

Submarine mines. Warington Smyth, xxxvii. 151.

Temperature of united mines, Cornwall. J. Taylor, ii. (1843), 141; J. S. Enys, 141.

— of Cornish mines. H. Mackworth, xii. 298.

Ventilation of Cornish mines. Carbonic acid produced by respiration, lights, and explosives. A. Wright, xvii. 5, 6, 8.

Water. Arresting of the inflow of, in sinking shafts. J. F. Bateman, xli. 120.

Winding. On the use of cast-steel drawing ropes in the Pribram mines. E. Langer, xlvii. 402.

— arrangements at the Styrian Iron Company's mines. M. Jaritz, xliii. 406.

See *Coal mines*; *Steam engines*, Cornish; *Pumping engines*; *Salt*; *Stamping engines*.

Almaden, mines and works of. H. Kuss, liv. 370.

Comstock. Deep mining on the Comstock. J. A. Church, lviii. 398.

— Accidents in the Comstock mines, and their relation to deep mining. J. A. Church, lviii. 397.

Cornwall. Mines in Cornwall. Balleswidened mine. A. Wright, xvii. 2.

Rammelsberg mine in the Lower Harz. F. Wimmer, lii. 345.

Saarbrücken mines, iron lining walls in the, liv. 352.

Tyrol. Mines on the Schneeberg Tyrol. F. M. von Friere, liii. 379.

Amber mine. On the sinking of a pair of iron-lined shafts for an experimental amber mine at Nortyken, in Samland, Prussia. H. Kühn, xl. 342.

Copper. Ore Knob copper mine and reduction works, Ashe county, North Carolina. E. E. Olcott, xli. 329.

Gold. Hydraulic gold mining in California. E. Sauvage, xlv. 321.

— Hydraulic (gold) mining in California. A. J. Bowie, jun., li. 337.

Iron mines of the Bilbao Iron Ore Company. F. C. Barron, li. 246.

— Bilbao iron mines. M. Bailla, lviii. 403.

Manganese ore mines at Vigunsa in Carniola. H. Fessel, xlv. 330.

Ozokerite (mineral oil and wax) mines in Galicia. E. Windakiewicz, xlii. 343.

Sulphur mines of Sicily. By C. Ledoux, xli. 308.

Zinc. On work done by divers in the Scharley zinc mines in Silesia. H. Freudenburg, xlv. 343.

**MINES, MILITARY:** Mechanical ventilation. Maj.-Gen. Pasley, vi. 190; J. J. Hawkins, 190.

**MINING AND METALLURGY.**—"On the progress of mining and metallurgy in foreign countries as recorded in the Abstracts of Papers in the Proceedings during the years 1874-78." (S.) H. Bauerman, lv. 297.

**MIRRORS, PNEUMATIC:**—"A mode of bending discs of silvered plate glass into concave or convex mirrors by means of the pressure of the atmosphere." J. Nasmyth, i. (1840), 31, 40.—Discussion: G. Lowe, i. (1840), 32; J. Macneill, 33; A. Pellatt, 40.

**MODELLING** and drawing in engineering. Sir J. Rennie, v. 118.

**MODULE**, of water. See *Water*, Measures of.

**MOISTURE** :—

Air, moisture in the. M. Fautrat, xl. 300.

Bricks, moisture absorbed by. G. F. White, xi. 502; J. G. Gamble, xliii.

200. By Japanese bricks: R. H. Brunton, xlvii. 9.

Brine, moisture in, at a maximum of concentration. H. Mehner, xlv. 335.

Cement. Moisture absorbed by Portland cement and concrete. G. F. White, xi. 502.

— Moisture absorbed by Roman cement. G. F. White, xi. 502.

Chalk, moisture in. F. Braithwaite, ii. (1842), 162;—Rev. J. C. Clutterbuck, xiv. 66; S. C. Homersham, 72; J. Prestwich, Jun., 77;—F. Braithwaite, xx. 211.

— moisture in dry: Prof. D. T. Ansted, ix. 363, 364, 365. In saturated chalk, 363, 365, 366, 374; table of results of experiments, 368. F. Braithwaite, table, 369.

— Moisture in, by capillary attraction. J. Evans, xlv. 51;—Rev. J. C. Clutterbuck, xlvii. 115; J. A. Longridge, 143; E. A. Cowper, 149.

— Absorbent power of. S. C. Homersham, xxxi. 53.

Coke, moisture absorbed by. H. E. Jones, xl. 10.

Gutta percha, moisture absorbed by. C. W. Siemens, xxi. 523.

Indiarubber, moisture absorbed by. C. W. Siemens, xxi. 523.

Mortar, moisture absorbed by. C. B. Lane, xi. 71;—G. Robertson, xvii. 418.

Paper. Moisture, absorbed by bank paper, under exhaustion. T. Oldham, ii. (1842), 81.

Sand, proportion of water in running. M. I. Brunel, i. (1837), 34.

— moisture in saturated. W. Clark, lvi. 154.

Sandstone, moisture absorbed by. C. B. Lane, xi. 71.

Silt, moisture in Humber. J. M. Rendel, ix. 17, 18.

Sludge, moisture in sewage. W. Shelford, xlv. 153, 204;—T. W. Keates, xlix. 175.

Soils, moisture in. Dr. J. H. Gilbert, xlv. 61.

— capacity of, for moisture. Dr. Lissauer, xlvii. 354.

— Moisture in earth. W. J. McAlpine, lvii. 200.

— Moisture in London clay. J. Colthurst, iii. 165. Stourbridge clay, 165.

— Moisture in blue clay. W. J. McAlpine, lvii. 200.

Wood, moisture in. J. Simpson, ii. (1842), 82; W. Cubitt (builder), 85; Gen. Paaley, 85.

— Moisture absorbed by English oak: H. P. Burt, xii. 210. English elm, 211; beech, 211; fir and larch, 211; rock elm, 215.

— Moisture in, freshly cut. C. A. Oppermann, lii. 293.

— Absorption of water by. E. J. Maumené, lvi. 300.

**MOLES**. See *Breakwaters*.

**MONEY**. See *Measures*, weights, and money.

**MONEY-CHEST**, railway. J. Chubb, vii. 185.

**MOORINGS** :—

Dublin. Surface moorings for quay walls, Dublin. W. J. Doherty, li. 143.

**Moorings—continued.**

- London. Span-chain moorings, Port of London : A. Mitchell, vii. 110.  
 Sinker, or mooring block, 112. Loaded timber frames, 112.  
 Mitchell's screw moorings : A. Mitchell, vii. 113, 114 ; Capt. J. Walker, 180.  
 Screwing tackle, 115, 138 ; Capt. Wellbank, 138 ; J. Murray, 141 ; G. Herbert, xv. 14.  
 Newcastle. Screw moorings, Newcastle-on-Tyne. A. Mitchell, vii. 115 ; W. A. Brooks, 132 ; J. Walker, 143.

**MORTAR :—**

- Addition of iron filings to mortar. G. Robertson, xvii. 424, 435, 441 ; G. F. White, 437 ; T. J. Pearsall, 438 ; T. Hawksley, 439.  
 Adhesion of mortar to bricks. G. Robertson, xvii. 420.  
 Andernach trass, xxxix. 313 ; trass-mortar, H. Rechter, xli. 260.  
 Bulk and weight of mortars. Herr Wiebe, lii. 306.  
 Composition of cement-mortar or compo. J. Grant, table, xxv. 102.  
 Experimental tests of various kinds of mortar made from lime, sand, pounded bricks, minion or pounded iron scales, Pozzuolana. J. Timperley, (T.) i. 46.  
 Influence of fineness of sand on the quality of mortar. W. Atkinson, lvi. 79.  
 "Investigation into the theory and practice of hydraulic mortar, as made on the new works of the London Dock Company, 1856-57." G. Robertson, xvii. 410.—Discussion : G. Robertson, xvii. 435, 440 ; G. F. White, 435 ; T. J. Pearsall, 438 ; J. Hawkshaw, 439.  
 Main drainage of London, xxiv. 313.  
 Needle-test for mortar, in Holland, xxxix. 314.  
 Pozzuolana mortar. G. R. Burnell, xvi. 444 ;—G. Robertson, xvii. 420, 424 ; T. Hawksley, 440 ;—C. Andrews, xxxiii. 360.  
 Preparation of mortar : G. B. Bruce, x. 226. Volume, 228 ; C. May, 233 ; Capt. W. S. Moorsom, 234 ; W. Radford, 234 ; J. Hawkshaw, 235.  
 Report of M. Feburier on hydraulic mortars for structures in the sea. J. Murray, xviii. 138.  
 Setting of hydraulic mortar under hydrostatic pressure. W. J. M'Alpine, xxvii. 292.  
 Theory of the composition and formation of hydraulic mortar. C. May, x. 302 ;—G. Robertson, xvii. 411.  
 Value of various kinds of hydraulic mortars (strength). Hr. Dyckerhoff, liii. 307.  
 Weight of mortar. C. B. Lane, xi. 78.

**MORTAR, COMPOSITION OF, FOR BRIDGES :—**

- Berwick, bridge over the Whitadder. J. T. Syme, iii. 102.  
 Birmingham and Oxford railway. C. B. Lane, xi. 71.  
 Charing Cross bridge, brickwork of. H. Hayter, xxii. 515.  
 Gravesend, foundations, Terrace pier. J. B. Redman, iv. 234.  
 Indian (Great) Peninsula railway. J. J. Berkley, xix. 603.  
 Leeds, Wellington bridge over the Aire. J. Timperley, iii. 105.  
 Lisbon and Santarem railway. J. S. Valentine, xviii. 15.  
 Liverpool docks. N. Beardmore, x. 301 ; R. Rawlinson, xxv. 115, 116.  
 Lockwood viaduct. J. Hawkshaw, x. 297, 301 ; A. Giles, 301.  
 Plymouth, Lary bridge. J. M. Rendel, (T.) i. 106.  
 Punjab, Kunkur mortar, for railway bridges in the. I. Bell, liv. 115.

**MORTAR, COMPOSITION OF, FOR BRIDGES—continued.**

- Punjab. Hydraulic mortar for piers of Alexandra bridge, Punjab Northern State railway. H. Lambert, liv. 82.  
 Ravi bridge. R. T. Mallet, liv. 64.  
 Sprotborough. Bridge at Sprotborough. H. Carr, x. 304.  
 Stratford. New bridge, Stratford-le-Bow. J. B. Redman, (T.) iii. 352.

**MORTAR, COMPOSITION OF, FOR DOCKS, &c. :—**

- Bann reservoirs. J. F. Bateman, i. (1841), 170; vii. 258.  
 Campana graving dock, Ferrol, lv. 375.  
 Croton river dam. J. J. R. Croes, xl. 312.  
 Fiume, Santorin mortar, Mole at. J. Prucha, xlv. 293.  
 Grimsby (Great) docks. E. H. Clark, xxiv. 44.  
 Hull, Humber dock. J. Timperley, (T.) i. 17. Junction dock, 35, 45, 47.  
     Experiments with mortars, 46.  
 London. London docks. G. Robertson, xvii. 429.  
     — Victoria docks. W. J. Kingsbury, xviii. 450.  
 Menai Strait lighthouse. D. P. Hewett, ii. (1842), 123.  
 Newry canal, entrance lock. Sir J. Rennie, x. 287.  
 Spezzia, dock walls. Sir C. A. Hartley, xxv. 152.  
 Sunderland. Preparation of mortar for Sunderland docks. J. Murray, xv. 424.  
     — New foundations of Sunderland lighthouse. J. Murray, iii. 354.  
 Swansea, South dock. J. Abernethy, xxi. 315.  
 Whitehaven, West quay. J. E. Williams, lv. 44.

**MORTAR, COMPOSITION OF, FOR TUNNELS, SEWERS, &c. :—**

- Beechwood tunnel, cement mortar. T. M. Smith, i. (1841), 143.  
 Cape of Good Hope: buildings. J. Calvert, xxiv. 35.  
 Ceylon: buildings. W. J. W. Heath, xxiv. 15.  
 Hull, old city walls. J. Timperley, (T.) i. 48.  
 India. J. G. C. Curtis, xxiv. 36; J. M. Heppel, 36.  
 Liège sewers. M. Mottart, lvi. 343.  
 London main drainage, xxiv. 313.  
 Lydgate tunnel. J. G. Fraser, xxii. 376.  
 Netherton tunnel. J. R. Walker, xix. 274.  
 Newport sewers. A. Williams, xxii. 278.  
 Paris sewers. H. B. Hederstedt, xxiv. 273, 277, 278.  
 Thames tunnel. W. Gravatt, xi. 504.

**MOULDING, IRON. Plate-moulding for the cylinders of locomotives. J. Fernie, xxii. 609.****MUD, OR SILT, IN RIVER WATERS :—**

- Analysis of river mud used for making Portland cement, xli. 142.  
 Danube. Solid matter in suspension in river waters. C. A. Hartley, xxi. 281. Analysis, xxxvi. 225.  
 Durance, mud or sediment in the water of the. G. Wilson, li. 216, 217.  
 Humber. Moisture in silt. J. M. Rendel, ix. 17, 18.  
     — Proportion of silt in the water of the. J. Murray, xxi. 27; J. Paton, 459.  
     — Mud of the: composition and analysis: J. Paton, xxi. 459, 460.  
 Hooghly, proportion of silt in the waters of the. J. A. Longridge, xxi. 15, 25; J. Murray, 27;—G. Turnbull, liii. 18.

Mud, or silt, in river waters—*continued*.

Mississippi, mud in the. E. L. Corthell, lv. 368.

Nile. Proportion of silt in river waters: the Nile, the Elbe, the Rhine.

G. B. W. Jackson, vii. 221.

— in the waters of the. J. Murray, xxi. 27;—G. Wilson, li. 217.

Paraná. Mud in river Paraná. G. Higgin, lvii. 273.

MURIATIC ACID. Removal of incrustation by the use of muriatic acid.

J. Farey, v. 213; A. Gordon, 214.

MUSICAL NOTES. Monochord frame for the comparison of musical notes.

W. Airy, xxvii. 447.

NAILS, grooved. L. Chélot, xlii. 312.

NAPHTHALINE AND PETROLEUM, critical examination of the value of, as substitutes for cannel coal. Prof. A. Wagner, xli. 306.

NAVIES. See *Ships of war*.

NAVIGATION in tidal rivers. See *Rivers*.

"NAVY," steam. See *Excavating machinery*.

NICKEL :—

Magnetic constants of nickel. M. Wild, li. 390.

— properties of nickel. H. Becquerel, lvi. 388.

Metallurgy of nickel. M. Badoureaux, liii. 380.

Production of large castings in nickel and cobalt. C. Winkler, xlix. 365.

Treatment of oxidised ores of nickel. J. Garnier, li. 335; lii. 342.

NITRO-GLYCERINE. See *Explosive agents*.

NOTATION, mechanical. See *Calculating engines*.

"NYCTOSCOPE," to enable the gunners to maintain a fire after nightfall.

Sir W. G. Armstrong, xix. 421.

OIL :—

Chinese vegetable oils, xlvii. 16.

Composition of oil. J. Faraday, ii. (1843), 185; products of combustion, 185.

Creosote, evaporative efficiency of. Capt. J. Selwyn, xxix. 194.

Lubricating oils. MM. Farez and Boullanger, xlv. 323.

— Oil test for lubrication. J. Farey, vi. 248; H. Houldsworth, 249.

Lubrication with neutral oils in steam engines with surface condensation.

O. Allaire, lii. 365.

Oil tests. M. Laugier, liv. 349.

Oil-testing materials used in industry: oils, &c. J. Gaudry, l. 291.

Ozokerite: The mineral oil and wax industry in Galicia. E. Windakiewicz, xlii. 343.

Production of paraffin and mineral oil in Prussian Saxony. L. Grostowsky, xlix. 355.

Refined neutral oils. O. Allaire, liii. 399.

Spontaneous combustion of cotton waste soaked in varnish (oil). H. Tapezierer and Dr. Rohrig, liii. 399.

See *Lighthouse Illumination*; *Paraffin*; *Petroleum*.

OMNIBUS. London General Omnibus Company, cost of conveyance by. J. B. Huntington, l. 31.

OPERA HOUSE, new, at Paris, foundation of. M. Baude, xliii. 331.

ORDNANCE. See *Artillery*.

ORES:—Frue concentrator (for dressing alimes). W. McDermott, xlvii. 401.  
See *Arsenic*; *Copper ores*, treatment of; *Iron ores*; *Lead ores*; *Zinc*.

OSCILLATIONS, on small, of a material system in stable equilibrium. F. Lucas, xxxix. 308.

OSCILLOGRAPH. Observations on rolling and pitching, made with the double oscillograph on board different vessels. L. E. Bertin, lviii. 436.

OXYGEN. See *Air*.

OZOKERITE. See *Oils*.

PACIFIC oceans, Atlantic and, junction of. See *Atlantic and Pacific Oceans*, Junction of.

PANAMA, Isthmus of. See *Atlantic and Pacific Oceans*.

PAPER:—

Moisture in paper. T. Oldham, ii. (1842), 81.

Paper manufactured from the common reed of the Albufera of Alcudia, Majorca. H. R. Waring, lii. 247.

Porosity of. J. T. Cooper, iii. 307.

Tensile strength of. A. Lüdicke, xlv. 285.

— of vegetable parchment. A. Lüdicke, xlv. 285.

PARAFFIN. On the manufacture of gas from paraffin oils. L. Grotowsky, li. 388.

— solid, extraction of, from paraffin oil. A. C. Kirk, xxxvii. 245.

PATENTS:—

Evil of patents in telegraphy. G. P. Bidder, xx. 96.

"Inquiry into the nature of patent law protection, with a view to the better appreciation and security of the inventor's rights." A. V. Newton, x. 193.—Discussion: T. Webster, x. 209, 217; C. Wordsworth, 210; B. Rotch, 211; C. May, 211; A. V. Newton, 212; W. Carpmael, 213; J. A. Lloyd, 214; R. Roberts, 214; A. Pellatt, 215; C. Varley, 215; S. Sidney, 215; F. Braithwaite, 216; W. Newton, 217; Dr. Ritterbandt, 217; J. C. Haddan, 218.

Law of patents. Sir J. Rennie, v. 115.

Obstructive or preventive patents. I. K. Brunel, xi. 287;—Sir W. G. Armstrong, xx. 486.

Permanent way company: G. P. Bidder, xvi. 287; xviii. 434. Fishing patents: 487.

Policy of patents, and of combinations of patentees. J. Hawkshaw, xvi. 283; P. W. Barlow, 284; G. P. Bidder, 287; W. B. Adams, 292; J. Locke, 293;—G. P. Bidder, xxv. 344.

## PAVEMENTS:—

Historical notice. Sir J. Rennie, v. 67.

Channel stones. G. F. Deacon, lviii. 21.

Contour of pavement in cross section. G. F. Deacon, lviii. 19, 85; J. L. Haddan, 65.

Dressing stones set by machinery. J. D. Brunton, lviii. 72.

General conditions for a good pavement. G. F. Deacon, lviii. 5, 9, 29; O. H. Howarth, 34; E. A. Bernays, 60; G. Farren, 64; R. Rawlinson, C.B., 68; L. H. Isaacs, 76; E. B. Ellice-Clark, 92; D. O. Proudfoot, 99; H. Shearer, 99; R. Vawser, 100.

“Improved mode of paving streets.” E. Lomax, i. (1841), 131.

Load on wheels. J. F. Bateman, lviii. 50.

Paving stones, or sets: form, size, and material:—Liverpool: G. F. Deacon, lviii. 2; J. F. Bateman, 51; J. B. Redman, 51; J. Lovegrove, 61. Manchester: J. G. Lynde, lviii. 66; L. H. Isaacs, 76; E. L. Stephens, 100; R. Vawser, 100.

Stone sets:—crushing loads. G. F. Deacon, lviii. 23, 80. Area covered by one ton of sets: J. G. Lynde, lviii. 66.

“Street carriage-way pavements.” G. F. Deacon, lviii. 1.—Discussion: see O. H. Howarth's paper on *Pavements*, wood (p. 181).

Birmingham, pavements in. J. P. Smith, xiii. 228; W. Taylor, 239.

Hull, pavements of. W. Clark, lviii. 94.

London, pavements in. O. H. Howarth, lviii. 32; J. B. Redman, 52; J. Lovegrove, 61; W. Shelford, 64.

—“Observations on the street paving of the metropolis, with an account of a peculiar system adopted at the London and North Western railway station, Euston Square.” W. Taylor, ix. 214.—Discussion: W. Haywood, ix., 222, 229; I. K. Brunel, 228; W. Radford, 223; W. H. Holland, 224; Prof. Ansted, 225; P. W. Barlow, 226; R. B. Dockray, 226; T. Saunders, 228; J. Tennant, 229; M. E. Legg, 230; W. Taylor, 230.

Manchester, pavements in. C. E. Cawley, xiii. 230. Asphalt-jointed pavements, G. F. Deacon, lviii. 8; J. F. Bateman, 50; J. Lovegrove, 62; of J. G. Lynde, 65; L. H. Isaacs, 76; E. B. Ellice-Clark, 91. Foundation hard core: G. F. Deacon, lviii. 8, 51; J. F. Bateman, 51; J. Lovegrove, 62; J. G. Lynde, 66; E. B. Ellice-Clark, 91.

—Maximum weight of vehicles. J. G. Lynde, lviii. 67.

Montreal. “Street and footwalk pavements of, from the years 1842 to 1878.”

(S.) P. W. St. George, lviii. 287.

Victoria and Tasmania roads, streets, and pavements. O. T. Hargrave, lv. 355.

Asphalt. “Applications of.” (S.) E. Chabrier (translated by W. H. Delano), xliii. 276.

—Melbourne. O. T. Hargrave, lv. 355.

—Cost of maintenance.—E. B. Ellice-Clark, lviii. 92.

Bituminous concrete pavement, or asphalt macadam, Liverpool. G. F. Deacon, lviii. 15.

Blast-furnace slags as paving materials. R. Krüger, lvi. 299.

Breccia pavement: rubble laid in cement. J. Price, lviii. 98.

—Cement-grouted, Edinburgh. J. Mitchell, lviii. 96.

Concrete. J. Mitchell, lviii. 96.

Granite. “Remarks on Herm granite, by F. C. Lukis, of Guernsey, in

**Pavements—continued.**

- reply to inquiries from the President, with some experiments made by the latter on the wear of different granites." Communicated by J. Walker, (T.) i. 231.
- Granite.** Comparative wear of various granites in the stone tramway, Commercial Road, London, by Mr. J. Walker, (T.) i. 233;—J. B. Redman, lviii. 52; J. Lovegrove, 61.
- Suitability and durability of various granites, and of millstone grit, used as paving in Liverpool (table). G. F. Deacon, lviii. 4.
- "Relative merits of granite and wood pavements and macadamized roads; derived from actual experience." D. T. Hope, ii. (1843), 203.
- Papier maché.** Note on a method of covering terraces. S. Casana, lviii. 367.
- Stone.** Blackfriars bridge. J. Mowlem Burt, lviii. 78.
- in Liverpool. J. Newlands, xiii. 232, 238, 240; J. P. Smith, 237;—G. F. Deacon, lviii. 24, 25. Cost, 24; R. Price Williams, 59. Durability of various granites: G. F. Deacon, lviii. 4. Wear and maintenance: G. F. Deacon, lviii. 22; table, 24; 25, 49.
- — Foundation of:—Hand-pitched: G. F. Deacon, lviii. 8. Portland-cement concrete, 7, 9, 80. Bituminous concrete, 14.
- — Joints of:—Ordinary gravel jointing: G. F. Deacon, lviii. 5, 7. Cement grouted joints, 5. Asphalt jointing, 5, 24, 25; G. F. Lyster, 96. Asphalt *versus* cement: G. F. Deacon, 5, 85; J. F. Bateman, 50; E. B. Ellice-Clark, 90, 91.
- in the City of London. W. Haywood, xiii. 234.
- Tar-pavement for foot-walks, Montreal. P. W. St. George, lviii. 296.
- Montrose suspension bridge. J. M. Rendel, i. (1841), 126.
- See *Asphalt*; *Roads*.

**PAVEMENTS, WOOD :—**

- Historical notice.** O. H. Howarth, lviii. 37; R. Rawlinson, C.B., 68.
- Asphaltic.** H. S. Copland, lviii. 57; L. H. Isaacs, 77.
- Ballard.** P. W. St. George, lviii. 291, 292.
- Clark's.** O. H. Howarth, lviii. 39.
- Conditions of a good.** G. F. Deacon, lviii. 29; O. H. Howarth, 41, 89; G. Woulfe Brennan, 53; R. G. Elwes, 56, 58; J. L. Haddan, 65; G. H. Stayton, 75; J. Mowlem Burt, 79; D. C. Prondfoot, 99.
- Expansion of, by moisture.** O. H. Howarth, lvii. 41; R. Harris, 71.
- Granite sets *versus* wood paving.** H. Shearer, lviii. 100.
- Henson's, Liverpool.** G. F. Deacon, lviii. 17, 18; O. H. Howarth, 41, 88; L. H. Isaacs, 77.
- Improved, Liverpool.** G. F. Deacon, lviii. 16; O. H. Howarth, 39.
- Life or durability of.** O. H. Howarth, lviii. 44, 88; G. Woulfe Brennan, 53; R. G. Elwes, 56; H. S. Copland, 58.
- Montreal, Canada. P. W. St. George, lviii. 290, 293, 301.
- Mowlem Burt and Co.'s pavement.** G. H. Stayton, lviii. 75.
- Nicholson:—Improved wood pavement.** P. W. St. George, lviii. 290, 292.
- Square pine or Tamarac wood-block pavement, Montreal.** P. W. St. George, lviii. 289.
- Stayton's.** G. H. Stayton, lviii. 75.
- Wear.** O. H. Howarth, lviii. 44, 87; R. G. Elwes, 56; H. S. Copland, 58, 59; G. F. Deacon, 81.



**Pavements, wood—continued.**

- “Wood as a paving material under heavy traffic.” O. H. Howarth, lviii. 31.  
 —Discussion on this and G. F. Deacon’s paper on Pavements (p. 179):  
 G. F. Deacon, lviii. 49, 51, 79, 93; O. H. Howarth, 49, 51, 86; J. F. Bateman, 50; J. B. Redman, 51; G. Woulfe Brenan, 53; Dr. P. Higgs, 54; T. Aveling, 54; R. G. Elwes, 56; H. S. Copland, 57; R. Price Williams, 59; E. A. Bernays, 60; J. Lovegrove, 61; G. Farren, 64; W. Shelford, 64; J. L. Haddan, 65; J. G. Lynde, 65; R. Rawlinson, C.B., 67, 78, 89; E. Chadwick, C.B., 69; A. Giles, 70; R. Harris, 71; J. D. Brunton, 72; G. H. Stayton, 73; L. H. Isaacs, 76; J. Mowlem Burt, 78; E. B. Ellice-Clark, 90; W. Clark, 93; G. F. Lyster, 96; J. Mitchell, 96; E. P. North, 96; J. Price, 98; D. C. Proudfoot, 98; H. Shearer, 99; E. L. Stephens, 100; R. Vawser, 100.  
 —Sizes and proper depth of blocks. O. H. Howarth, lviii. 41, 88; G. Woulfe Brenan, 53; R. G. Elwes, 57; H. S. Copland, 58, 59; G. F. Deacon, 83; D. C. Proudfoot, 99.  
 —water-tightness. O. H. Howarth, lviii. 45, 88; Dr. P. Higgs, 54; H. S. Copland, 58, 59; J. L. Haddan, 65; R. Harris, 71; G. H. Stayton, 75; G. F. Deacon, 83.  
 —with sand foundation. Dr. Higgs, lviii. 54; H. S. Copland, 59; J. L. Haddan, 65.  
 —of Chicago. E. A. Fox, lvii. 332.

**PEAT FUEL:—**

- Compressed peat in blast furnaces. A. Enigl, lvi. 348.  
 Cost of production of manufactured peat, J. McC. Meadows, xxxviii. 256; H. Clayton, 263; F. Hahn Danchell, 266; F. H. Trevithick, 269; H. P. Fenton, 275.  
 Dry process of manufacture, J. McC. Meadows, xxxviii. 255; Exter’s system, 255.  
 Formation of peat. Prof. Forchhammer, xxi. 483; G. P. Bidder, 485; J. Oldham, 488.  
 Manufacture of peat fuel: J. Parkes, i. (1839), 30, 68; C. W. Williams, 38, 69; J. Horne, 41.  
 —and evaporative performance: “Notes of a visit paid to some peat works in the neighbourhood of St. Petersburg in May 1875.” (S.) W. Anderson, xli. 202.  
 Peat as fuel. W. Bald, i. (1838), 50; i. (1839), 29; D. Mushet, 29; G. Lowe, 29; Dr. Smith, 30; J. Farey, 30; F. Bramah, 30; J. Parkes, 30;—C. W. Williams, i. (1839), 34, 38.  
 —for industrial and domestic purposes. A. Lencauchez, xlv. 289.  
 —for locomotives. H. Raab, xlix. 313.  
 —for smelting iron, i. (1839) 29, 37.  
 Peat charcoal. J. Farey, i. (1839), 30; J. Parkes, 30; J. Taylor, 41.  
 Peat fuel: heating and evaporative power: J. McC. Meadows, xxxviii. 257, 259; H. Clayton, 263; A. McDonnell, 264, 267; F. H. Trevithick, 269; H. P. Fenton, 271, 275.—W. Anderson, xli. 205.—Prof. H. Fritz, xliii. 399.—J. Head, xlviii. 78.  
 “—machinery.” J. McC. Meadows, xxxviii. 249.—Discussion: E. A. Cowper, xxxviii. 261; H. Clayton, 262; Col. A. B. Wragge, 263; A. McDonnell, 263, 267; C. W. Siemens, 265; F. Hahn Danchell, 266;

Peat fuel—*continued*.

- J. McC. Meadows, 266; R. Mallet, 267; F. H. Trevithick, 269; D. Stevenson, 270; H. P. Fenton, 271.
- Peat of the valley of the Somme. J. Kolb, xi. 351.
- Peat *versus* charcoal. C. W. Williams, (T.) iii. 163. For blast furnaces. A. Enigl, lvi. 349.
- Peat and resin. "On the properties and composition of peat and resin fuel." C. W. Williams, i. (1839), 38.
- "Preparation, properties, and uses of turf and turf-coke." C. W. Williams, (T.) iii. 163.
- Report on the use of turf as fuel for railway engines, and on the mode of preparing the pressed turf used for that purpose in Bavaria. H. P. Fenton, xxxviii. 271.
- Wet process of manufacture. J. McC. Meadows, xxxviii. 249; pugmill, 249; Schlickeysen's machine, 250; Rahder's machine, 250; Clayton's machine, 251. H. Clayton, 262. Eichorn's system, J. McC. Meadows, 252; Challeton's system, 254. Hodges' system: F. H. Trevithick, 269. Process at Haspelmoor: H. P. Fenton, 272.
- See *Blast furnaces*, fuel for; *Fuels*.

## PERMANENT WAY OF RAILWAYS—General references:—

- Historical notice. W. B. Adams, xi. 244.
- Adams', W. B., timber-fitched rail. C. H. Gregory, xviii. 426; R. Sinclair, 426; W. B. Adams, 442.
- Annular iron sleeper permanent way. P. Chopin, xliii. 346.
- Classification of permanent way. J. Fowler, xx. 277.
- "Construction and duration of the permanent way of railways in Europe, and the modifications most suitable to Egypt, India, &c." W. B. Adams, xi. 244.—Discussion: W. B. Adams, xi. 273, 274, 280, 288; P. W. Barlow, 273, 278, 292; I. K. Brunel, 274, 278, 286; P. Ashcroft, 276; W. Bird, 277; J. Samuel, 277; W. H. Barlow, 279; Capt. W. S. Moorsom, 280; R. J. Hood, 282; J. Hawkshaw, 283, 294; C. May, 284; W. Wilson, 285; J. Allport, 285; Capt. Simmons, R.E., 285, 295; J. E. Errington, 291; G. P. Bidder, 292; G. H. Phipps, 294; T. Brassey, 295; J. Bethell, 295; R. Stephenson, 296.
- "Construction of railways of continuous bearing." J. Reynolds, i. (1837), 22.
- Double-headed rail chairs, system of, on cross sleepers; the best system. G. P. Bidder, xx. 290.
- on wood cushions. T. E. Harrison, xx. 279; R. B. Dockray, 280.
- and transverse sleepers; most economical system. C. B. Lane, xxi. 415.
- Elastic permanent way, on longitudinal sleepers. W. B. Adams, xxiii. 419, 424, 439; G. W. Hemans, 433; W. H. Barlow, 434.
- Elasticity of permanent way. M. Caillé, xxxix. 328.
- General principles of construction of permanent way. W. B. Adams, xvi. 226;—G. W. Hemans, xxv. 397; J. Fowler, 427; G. P. Bidder, 450.
- Good permanent way. P. Bruff, xvi. 282; J. Hawkshaw, 283; G. P. Bidder, 287, 385; J. Locke, 293; J. S. Perring, 297.
- Macdonald's system of railway construction: lattice substructure. C. Manby, iii. 64.
- "Principles and construction of railways of continuous bearing." J. Reynolds, (T.) ii. 73.

Permanent way of railways—General references—*continued*.

Recent improvements in wrought-iron permanent way (steel rails and iron sleepers—Hilf and other systems). L. Kirsch, xlvii. 322.

"Results of trials of varieties of iron permanent way." F. Fox (Bristol), xx. 259.—Discussion: F. Fox, xx. 275, 286; J. Hawkshaw, 275; J. Fowler, 276; T. J. Woodhouse, 277; C. H. Gregory, 277; T. E. Harrison, 279; R. B. Dockray, 280; J. Strapp, 282; W. H. Barlow, 282, 283; C. B. Vignoles, 282, 283; P. Bruff, 283; B. Burleigh, 283; G. Berkley, 285; G. R. Stephenson, 286; G. P. Bidder, 289.

Seaton's way; longitudinal sleepers and saddle rails. R. B. Dockray, xx. 281. J. Strapp, 282; F. Fox (Bristol), 288.

"Some recent improvements in the permanent way of railways." P. M. Parsons, xvi. 259.—Discussion on the two preceding Papers: P. M. Parsons, xvi. 266; P. W. Barlow, 269, 284; G. W. Hemans, 271; R. Richardson, 273; J. K. Arthur, 273; B. Burleigh, 274; W. H. Barlow, 276; J. E. Errington, 277; C. May, 279, 287; P. Bruff, 281; J. Hawkshaw, 283; W. Sowerby, 285; W. Pole, 285; G. P. Bidder, 287; W. B. Adams, 288; H. Greaves, 292; J. Locke, 293; H. Carr, 294; T. R. Crampton, 295; J. S. Perring, 296.

Use of cast and wrought iron as a material for railway sleepers (the Hartwich and the Hilf systems of way, &c.). L. Kirsch, xlv. 252.

Use of steel in the construction of permanent way. A. Huberti, xli. 281.

Table of comparative analysis of various classes of permanent way. W. B. Adams, xvi. 258.

"Varieties of permanent way, practically used or tried on railways up to the present period." W. B. Adams, xvi. 226. (1 plate.)

Amsterdam-Rotterdam railway. Chev. F. W. Conrad, iii. 178.

Australian (South) railways. R. C. Patterson, lvi. 25, 26, 28, 29, 30, 88.

Bilbao Iron Ore Company's railway. F. C. Barron, li. 241; table, 254.

Birmingham and Gloucester. "An account of the permanent way of the Birmingham and Gloucester railway." G. B. W. Jackson, ii. (1842), 53.

Bordeaux. "On the laying of the permanent way of the Bordeaux and Bayonne railway through the Grandes Landes." F. R. Conder, xvi. 371.

—Discussion: J. Hawkshaw, xvi. 380, 384; E. Price, 381, 384; G. Berkley, 381; P. Bruff, 382; J. Strapp, 382; W. T. Doyne, 383; N. Beardmore, 383; J. S. Valentine, 383; J. G. C. Curtis, 383; C. Sanderson, 383; C. May, 384; C. Babbage, 384; G. P. Bidder, 385.

Brazil. Double-headed rails on Greaves' sleepers, in Brazil. E. B. Webb, xix. 245.

Canada, wooden railways in. C. D. Fox and F. Fox, xxxix. 78.

—Canadian railways. A. MacDougall, liii. 93.

Dublin and Drogheda. "Description of the rails, sleepers and fastenings on the Dublin and Drogheda railway." G. W. Hemans, v. 233. (1 plate.)—Discussion: C. May, 239, 241; Gen. Pasley, 240, 243; Capt. Moorsom, 241; T. H. Statham, 241; J. Harris, 242; C. Fox, 242; G. W. Hemans, 242; J. Thompson, 242, 245; J. Hawkshaw, 244; G. P. Bidder, 244; C. B. Vignoles, 245.

—W. Harding, viii. 270.

Festiniog railway. Capt. W. H. Tyler, xxiv. 363.

Permanent way of railways—General references—*continued.*

- Germany: Regulations for dimensions of rails. R. Crawford, xxi. 23.  
 — Prevalling type: Vignoles' rail with cross sleepers; examples: R. Crawford, xxii. 23; C. B. Vignoles, 27.  
 — permanent way (German Railway Union). W. R. Browne, lvii. 208.  
 Great Northern railway. R. Price Williams, xxv. 360.  
 India. Most suitable permanent way for railways in India and other hot climates: G. P. Bidder, xviii. 434; Capt. W. S. Moorsom, 439. Scinde railway: J. Brunton, xxii. 463.  
 Lancashire and Yorkshire. "Description of the permanent way of the Lancashire and Yorkshire, the Manchester and Southport, and the Sheffield, Barnsley, and Wakefield railways." J. Hawkshaw, viii. 261.  
 — Discussion: J. Hawkshaw, viii. 262, 268, 272; J. Samuel, 263, 268; I. K. Brunel, 266, 268; P. W. Barlow, 268; J. Pim, 269; A. Gordon, 269; G. P. Bidder, 269; Capt. Moorsom, 269, 271; W. Harding, 270; T. H. Statham, 271; F. Whishaw, 271; E. Hodgkinson, 271; Gen. Pasley, 271.  
 Madras. "On the permanent way of the Madras railway." B. McMaster, xviii. 417.—Discussion: G. B. Bruce, xviii. 423; J. Hawkshaw, 423, 432; J. S. Valentine, 424; P. M. Parsons, 424; J. A. Ransome, 424; C. H. Gregory, 425; R. Sinclair, 426, 433, 434; J. Samuel, 426; J. Bethell, 429, 435; G. P. Bidder, 433, 434; H. Greaves, 435; J. Brunel, 435; E. L. I. Blyth, 436; D. Stevenson, 436; M. Scott, 437; A. M. Rendel, 437; R. Rawlinson, 437; T. E. Harrison, 438; J. Abernethy, 438; H. Maudalay, 438; Capt. Moorsom, 439; W. B. Adams, 441; J. Locke, 443.  
 Midland. "On the construction of the permanent way of railways; with an account of the wrought-iron permanent way laid down on the main line of the Midland railway." W. H. Barlow, ix. 387. (1 plate.)—Discussion: W. H. Barlow, ix. 401, 402, 407; P. W. Barlow, 402, 404, 408; J. Hawkshaw, 402; I. K. Brunel, 403, 404; C. H. Gregory, 405; J. Glynn, 405; J. Locke, 405; J. E. Errington, 407; Capt. Moorsom, 408.  
 Norwich railway. Permanent way laid on morass. G. B. Bidder, vi. 158.  
 Pennsylvania railroad: Vignoles rail on cross sleepers. C. D. Fox and F. Fox, xxxix. 67;—Capt. D. Galton, liii. 30.  
 Philadelphia and Reading. "Account of the method employed in constructing the permanent way of the Philadelphia and Reading railway, U.S., with a description of a wrought-iron joint chair and fastening for the rails, as employed on the Baltimore and Susquehanna and other railways in the United States." W. E. Newton, vi. 59. (1 plate.)—Discussion: W. E. Newton, 76; W. Mitchell, 79; G. P. Bidder, 79; I. K. Brunel, 79; W. Cubitt, 80; P. W. Barlow, 80.  
 Prussia, flange rail and cross sleepers in. J. Hawkshaw, xvi. 380; P. Bruff, 382.  
 — railways in: Heavy iron way. T. A. Rochussen, xxv. 431; tables; 435, 447; C. H. Gregory, 456.  
 Queensland railways. C. D. Fox, xxvi. 53, 57.  
 Recife and São Francisco railway. W. M. Peniston, xxii. 395, 408.  
 Riga-Dunaberg. Flange rail on cross sleepers. J. Hawkshaw, xviii. 424.  
 São Paulo railway. D. M. Fox, xxx. 41.  
 South Eastern. "Description of the permanent way of the South Eastern railway." J. Pope, ii. (1842), 72.—Discussion: C. May, ii. (1842), 74, 77; W. Cubitt, 75, 78, 79; J. Walker, 78, 79; J. Macneill, 78; J. Horne, 79; J. Colthurst, 79; S. Seaward, 79; J. Lynde, 79.

**Permanent way of railways—General references—continued.**

- United States: ordinary practice. C. D. Fox and F. Fox, xxxix. 78;  
 W. R. Galbraith, 101.  
 Wales, South. Flange rail and cross sleepers. W. T. Doyne, xvi. 383.  
 Waterford and Kilkenny railway. Capt. W. S. Moorsom, xi. 281.

**PERMANENT WAY—BALLAST:—**

- Birmingham and Gloucester railway. T. Casebourne, ii. (1842), 55.  
 Characteristics of good ballast. J. Brunlees, xxi. 347; J. Hawkshaw, 422.  
 Dublin and Drogheda railway. J. Macneill, ii. (1842), 79;—G. W. Hemans, v. 236.  
 German railways, ballast on. R. Crawford, xxii. 25.  
 Great Northern railway, ballast on. R. Price Williams, xxv. 359.  
 Pernambuco railway, sand ballast. G. O. Mann, xxiv. 2.  
 Weight of ballast. C. B. Lane, xi. 78.

**PERMANENT WAY—CHAIRS:—**

- Barlow's, W. H., double-wedge chair. W. B. Adams, xvi. 238.  
 Barlow's, P. W., bolted chair. W. B. Adams, xvi. 234.  
 Barningham's bolted joint-chair. W. B. Adams, xvi. 239; J. Hawkshaw, 283.  
 Burleigh's joint-chair, with iron wedge. W. B. Adams, xvi. 240, 257.  
 Cast-iron trough chair. W. B. Adams, xxiii. 427.  
 Chairs let into sleepers. J. Brunlees, xxi. 349.  
 Cushioning double-headed rails in the chairs. T. E. Harrison, xxv. 411, 412.  
 Day's cast-iron base-plate chairs. W. B. Adams, xvi. 235.  
 Dove-tail joint-chair for bridge-rails, on the Great Southern and Western railway. W. B. Adams, xvi. 242.  
 Fowler's joint chair. W. B. Adams, xi. 261; C. May, 284; W. Wilson, 285; J. Allport, 285; Capt. J. L. A. Simmons, 286;—W. B. Adams, xvi. 233.  
 Greaves's joint and intermediate chair. W. B. Adams, xvi. 241.  
 — and Douglas's fish-joint chair and sleeper. W. B. Adams, xi. 252.  
 McConnochie's cast-iron wedge-chair. W. B. Adams, xvi. 235.  
 "New form of railway chairs and improved fastenings." C. May, i. (1841), 83.—Discussion: W. Cubitt, i. (1841), 85; J. Pim, 86; C. B. Vignoles, 86; G. Mills, 86, 87; S. Seaward, 86, 87; J. J. Hawkins, 86.  
 Parsons' chair, with end-grain wood cushions. P. M. Parsons, xvi. 263, 267; T. R. Crampton, 296;—P. M. Parsons, xviii. 424.  
 — joint and intermediate chairs, with iron wedges. W. B. Adams, xvi. 238; P. M. Parsons, 259, 262, 267; B. Burleigh, 274; T. R. Crampton, 295.  
 Perring's joint-chairs, xvi. 296.  
 Samuel's fished-joint chair. W. B. Adams, xi. 262; J. Samuel, 277; W. B. Adams, xvi. 234; P. Bruff, 281; J. Hawkshaw, 283.—J. Brunlees, xxi. 348.  
 Wright's vice-jaw chair. W. B. Adams, xvi. 239.  
 Wrought-iron chairs, by J. Ramsbottom. F. W. Webb, xxv. 410.

**PERMANENT WAY—BRACKET CHAIRS AND JOINTS:—**

- Adams's bracket chairs, North London railway. W. B. Adams, xxiii. 421.  
 — joint bracket chair, Great Northern railway. R. Price Williams, xxv. 359.

**Permanent way—Bracket chairs and joints—continued.**

Adams's brackets, Queensland railways. C. D. Fox, xxvi. 57.

Bracket fastenings for double-headed rails. W. B. Adams, xi. 249, 251; xvi. 233, 235, 238, 240, 290;—P. M. Parsons, xvi. 267; B. Burleigh, 276; J. E. Errington, 277.

Wood brackets, Paris and Rouen railway. W. B. Adams, xvi. 239.

**PERMANENT WAY—COST FOR MAINTENANCE AND RENEWAL:—**

Annual cost of renewals of one mile of single line, with steel rails. R. Price Williams, xlv. 188.

Cost of maintenance. J. E. Errington, xi. 292; G. P. Bidder, 294; T. Brassey, 295; R. Stephenson, 297.

— of way, Recife and São Francisco railway. W. M. Peniston, xxii. 408.

— of permanent way. W. H. Barlow, xli. 73; J. W. Barry, 74; F. Fox (Bristol), 74; T. E. Harrison, 81.

— and renewal. W. H. Barlow, ix. 388; proportional to traffic, 389, 390.

— and renewals of permanent way, and amount of ordinary capital, in 1875, for nine English railways. R. Price Williams, xlv. 152, 181.

— per mile for maintenance and renewals of permanent way on nine English railways, with table, xlv. 150, 152, 171–180.

“Description of a running gauge for ascertaining the parallelism of a railway.” E. Cowper, i. (1840), 30.

Increase of cost of maintenance and renewal of permanent way on nine English railways, with table, xlv. 148, 170.

Influence of heavy traffic on durability and maintenance. R. Price Williams, xxv. 359, 362; T. E. Harrison, 413.

Maintenance and renewal of way, in proportion to tonnage, on the Great Northern railway. H. Carr, xiv. 440; table, 442.

— of way, as affected by play of wheels. H. Carr, xvi. 295.

“— and renewal of permanent way.” R. Price Williams, xxv. 353, 426. (10 plates.)—Discussion: R. Price Williams, xxv. 375, 426; O. W. Siemens, 378; C. B. Vignoles, 379, 395; Sir C. Fox, 381; G. Berkley, 382; F. Fox, 392; T. A. Rochussen, 396; G. W. Hemans, 397; G. H. Phipps, 399, 408; H. Bessemer, 401, 414; J. Hawkshaw, 404; R. Johnson, 405; F. J. Bramwell, 407; W. H. Barlow, 408; F. W. Webb, 409, 426; J. Cubitt, 410; T. E. Harrison, 410; G. W. Hemans, 414; J. S. Crossley, 414; R. Brotherhood, 416; F. Stileman, 417; H. W. Schneider, 418; C. B. Lane, 427; J. Fowler, 427.

— and renewal of way on seven to nine principal railways: R. Price Williams, xxv. 355; tables, 369, 370; table xiii. 374. London and North Western railway: R. Price Williams, 356; diagram, 366. North Eastern railway: T. E. Harrison, 418. Great Northern railway: R. Price Williams, 359, 366; table ix. 373.

Money life of the permanent way of the Great Northern railway. R. Price Williams, xlv. 150.

“Permanent way of railways.” R. Price Williams, xlv. 147. (9 plates.)—Discussion: R. Price Williams, xlv. 191; R. C. May, 194; W. B. Lewis, 194; A. A. Langley, 196; E. A. Cowper, 197; E. Riley, 198, 205; J. Tomlinson, Jun., 200; F. J. Bramwell, 202; Dr. C. W. Siemens, 203; J. Brunlees, 205; C. P. Sandberg, 205; R. H. Tweddell, 207.

Permanent way—Cost for maintenance and renewal—*continued*.

- Prevention of vibration on Hownes Gill viaduct. W. Cudworth, xxii. 47.  
Shimming the way, in America. C. D. Fox and F. Fox, xxxix. 67, 79;  
W. B. Galbraith, 102; W. Stanley, 108;—A. Macdougall, liii. 94.

PERMANENT WAY—FISH-JOINTS AND RIVETED JOINTS:—

- Historical notice of fish-joints. W. B. Adams, xi. 259;—P. Bruff, xvi. 282;  
W. B. Adams, 289;—C. B. Vignoles, xxii. 28;—G. H. Phipps, xxv. 399;—  
W. W. Evans, xlii. 127.

Bolted joints, in Germany. W. Bird, xi. 277; J. Samuel, 277.

- Fish-joint. J. Samuel, viii. 285;—O. H. Gregory, ix. 405;—P. Ashcroft,  
xi. 276; J. Samuel, 277; I. K. Brunel, 278; R. J. Hood, 283; J. Hawkshaw,  
283; G. P. Bidder, 294;—W. B. Adams, xvi. 230, 231, 288; G. W. Hemans,  
271; W. H. Barlow, 277; J. E. Errington, 278; C. May, 279, 280;  
P. Bruff, 281; W. Pole, 286; G. P. Bidder, 287; H. Greaves, 293;—  
W. B. Adams, xxiii. 425;—C. B. Vignoles, xxv. 380.

— with bolts, by J. Ramsbottom. F. W. Webb, xxv. 410.

- of rails. O. P. Sandberg, xlvii. 320. Best form of fish-plate, 320.  
Angle fish-plates in Sweden, liii. 96.

Fished joints of rails. Strength of, tested by Mr. D. Kirkaldy. R. Price  
Williams, xlv. 160, 193; J. Tomlinson, Jun., 202; C. P. Sandberg, 206.

Rail-joints, by Elwood Morris, xvi. 293.

Riveted plate-joints of rails. J. Hawkshaw, viii. 261, 262, 272.

- joints:—Bridge rail, Bordeaux and Bayonne railway: F. R. Conder,  
xvi. 373; J. Hawkshaw, 380. Barlow rail: C. Sanderson, xvi. 383,

— fish-joint. G. W. Hemans, xvi. 273.

Scarf-joint, Richardson's. W. B. Adams, xvi. 289.

Strength of fish-plates, tested by Mr. D. Kirkaldy, xlv. 160.

- Suspended joint *versus* bedded joint. P. Bruff, xx. 283; C. B. Vignoles,  
283; J. Brunlees, xxi. 348; Sir J. Paxton, 387; Col. Yolland, 397;  
G. B. Bruce, 407; J. Hawkshaw, 423; F. J. Bramwell, xxv. 408.

Wood-pile-joint, fished, Mansell's. W. B. Adams, xvi. 235, 288.

PERMANENT WAY—KEYS AND TRENAILS:—

- Compressed-oak trenails and keys. C. May, i. (1841), 84, 85; W. Cubitt,  
85;—J. Pope, ii. (1842), 73; C. May, 74, 77; W. Cubitt, 78; W. Cubitt, 79;  
—F. Braithwaite, iv. 56; W. Cubitt, V.-P., 57; C. May, vi. 279; P. Bruff,  
281; J. Hawkshaw, 283; W. Pole, 285; J. Locke, 293; W. B. Adams,  
xi. 256.

— manufacture of. G. L. Molesworth, xvii. 32; A. Ransome, 42; C.  
May, 43.

- deficient resistance on curves. J. Brunlees, xxi. 349, 350. Strength:  
J. A. Ransome, xxi. 414.

— in hot climates. A. Ransome, xviii. 424. Madras railway: B.  
M'Master, xviii. 421; J. Hawkshaw, 424. Lisbon and Santarem rail-  
way: J. S. Valentine, xviii. 424. São Francisco railway: W. M. Peniston,  
xxii. 396.

Durability of keys and trenails in India. B. M'Master, xviii. 421.

Hollow iron key fastening. W. H. Barlow, iv. 49, 57; Capt. W. S.  
Moorsom, 57.

Iron key and end-grain cushion, for hot climates. P. M. Parsons, xviii. 424.

**Permanent way—Keys and trenails—continued.**

Iron keys, by J. Ramsbottom. F. W. Webb, xxv. 410; F. Stileman, 418.

Keys of native wood, Pernambuco railway. G. O. Mann, xxiv. 10.

Long wedge oak keys, for hot climates. J. Hawkshaw, xviii. 424; J. S. Valentine, 424.

“Remarks on the different modes of fastening railway bars in their chairs; and a description of a new hollow wrought-iron key.” W. H. Barlow, iv. 49.

—Discussion: W. H. Barlow, iv. 56, 57; G. H. Palmer, 56; F. Giles, 56; F. Braithwaite, 56; W. Cubitt, 57; Capt. W. S. Moorsom, 57; T. M. Smith, 57; J. Walker, 57; J. Farey, 58.

Wood-screw fastenings. Dr. W. Pole, xxxix. 105.

**PERMANENT WAY—POINTS AND CROSSINGS:—**

Baynes' switch. B. Burleigh, xiv. 421, 423.

Burleigh's switch: B. Burleigh, 424, 425. Crossing, 427, 428; R. Stephenson, 435; J. Hawkshaw, 435.

Carr's railway crossing. H. Carr, xiii. 437.

— switch and crossing. B. Burleigh, xiv. 421; H. Carr, 432.

“Construction of railway switches and crossings.” B. Burleigh, xiv. 419.

—Discussion: B. Burleigh, xiv. 431, 433, 435, 436; H. Carr, 432, 440; C. Nixon, 433, 436; J. Cubitt, 433; R. Stephenson, 434, 436; C. Sanderson, 435; J. Hawkshaw, 435; C. May, 436; G. P. Bidder, 436; W. Pole, 437; J. Simpson, 442.

Crossings, by W. Pole, xiv. 437.

— manufacture of, by hydraulic pressure. R. H. Tweddell, xlv. 207.

Deficiencies of ordinary switches and crossings. R. Stephenson, xiv. 429, 434; B. Burleigh, 431.

Duncan's crossing point, ix. 233.

Duration of points and crossings. B. Burleigh, xiv. 419, 422, 429, 431, 434; H. Carr, 433; C. Nixon, 433, 436; J. Cubitt, 433; R. Stephenson, 434; C. Sanderson, 435; J. Hawkshaw, 436; C. May, 436; W. Pole, 437.

Facing switches. R. C. Rapier, xxxviii. 159, 172, 176; J. Dixon, 208; F. Fox (Bristol), 224; H. Oakley, 240; T. E. Harrison, 246.

Faram's switch, iii. 127.

Fox's switch. B. Burleigh, xiv. 419.

Hurry's railway crossing, xvi. 238.

Parsons' points and crossings. B. Burleigh, xiv. 420, 423.

Points and crossings, Great Western railway. B. Burleigh, xiv. 419, 420.

Ransomes' and Biddell's solid chilled crossing, xvi. 299.

Report of the German Railway Union on switches and crossings. W. R. Browne, lvii. 213.

Safety lock for switch and signal connections. Inspector Beemelmans, lii. 336.

Switch locks. R. C. Rapier, xxxviii. 172.

Wharton's switch. Capt. D. Galton, liii. 31, 87; W. Atkinson, 73; C. P. Sandberg, 96.

Wild's switches, vii. 210;—B. Burleigh, xiv. 420.

**PERMANENT WAY—QUANTITIES AND FIRST COST:—**

Birmingham and Gloucester railway. Cost. G. B. W. Jackson, ii. (1842), 54.

Dublin and Drogheda railway. Cost. G. W. Hemans, v. 238.



**Permanent way—Quantities and first cost—continued.**

- Madras railway. Quantities and cost. B. M'Master, xviii. 417, 418.  
 Philadelphia and Reading railway, U.S. Quantities and cost. W. E. Newton, vi. 70 to 75.  
 South Eastern railway. W. Cubitt, ii. (1842), 78.  
 Waterford and Kilkenny railway. Cost. Captain W. S. Moorsom, xi. 282.  
 Average cost of relaying one mile of single line of English railways, 1865-75. R. Price Williams, xlv. 180.  
 Bowl-sleeper way *versus* ordinary way. H. Greaves, xviii. 435.  
 Continuous stone way. F. Fox (Bristol), xx. 272.  
 Cost of renewing one mile of single line, Great Northern Railway, 1866. R. Price Williams, xxv. 360.  
 Crossting sleepers, in India. J. Brunton, xxii. 465.  
 "Cup-trough-sleeper road" *versus* ordinary sleeper way. Quantities and cost. J. Samuel, xviii. 429.  
 Iron permanent way. Cost. W. H. Barlow's permanent way, ix. 393, 394. Reynolds' iron way, (T.) ii. 73; J. Hawkshaw, ix. 408. Maconnell's way. F. Fox (Bristol), xx. 263, 265, 266, 268; J. Fowler, 276. Iron permanent way, Bristol and Exeter railway: F. Fox (Bristol), xxv. 395. De Bergue's way: F. Fox (Bristol), xxv. 395.  
 Quantities and cost. W. B. Adams, xvi. 258, 291; P. M. Parsons, 268; P. W. Barlow, 269, 270.  
 Railway chairs, wedges, and spikes. Cost. W. Cubitt, i. (1841), 85.  
 Wrought-iron keys. Cost. W. H. Barlow, iv. 56; F. Braithwaite, 57.

**PERMANENT WAY—RAILS, IRON:—**

- Historical notice. W. B. Adams, xvi. 228, 289, 291; P. M. Parsons, 266; R. Richardson, 273; C. May, 279; P. Bruff, 282; H. Greaves, 292.  
 Weight of rails: E. Woods, xxvi. 68.  
 Adams' suspended girder-rail: W. B. Adams, xvi. 249, 251, 253, 288; P. M. Parsons, 266, 268; G. W. Hemans, 273; B. Burleigh, 275. With timber longitudinals, 257;—W. B. Adams, xviii. 442; xxxi. 369.  
 Barlow's saddle-back rail. W. B. Adams, xi. 247, 263, 290; P. W. Barlow, 273; I. K. Brunel, 274, 276, 287; W. H. Barlow, 279, 280; R. Stephenson, xi. 476;—W. B. Adams, xvi. 246, 288; G. W. Hemans, 272; C. May, 280; P. Bruff, 281; O. Sanderson, 383; E. Price, 384;—W. H. Barlow, xx. 282.  
 Bridge rail, Bordeaux and Bayonne railway. F. R. Conder, xvi. 373.  
 Movements by expansion and contraction regulated by riveting the rails together, 374, 375.  
 — Dublin and Drogheda railway. G. W. Hemans, v. 233; C. May, 240.  
 — *versus* flange rail. J. Hawkshaw, xvi. 380; G. Berkley, 381; N. Beardmore, 383; J. G. C. Curtis, 383.  
 Bull-headed section. J. Brunlees, xlv. 205.  
 Depreciation of iron rails. R. Price Williams, xlv. 193.  
 "Description of a sawing machine for cutting railway bars." J. Glynn, (T.) iii. 197.  
 — "of a machine for cutting-off railway bars." J. Glynn, i. (1839), 51.  
 Development of rail production in Russia, xlviii. 291.  
 Double-headed rails and chairs *versus* bridge rails. T. H. Statham, v. 241; J. Harris, 242; C. Fox, 242; J. Thomson, 242; J. Hawkshaw, 244.  
 — *versus* flange rails. C. B. Vignoles, xxv. 380; G. Berkley, 382; G. W.

**Permanent way—rails, iron—continued.**

Hemans, 398; G. H. Phipps, 401; J. Hawkshaw, 404; R. Johnson, 407; T. E. Harrison, 412; F. Stileman, 418; J. Fowler, 428;—A. A. Langley, xlv. 197.

**Durability of rails in Brazil.** G. O. Mann, xxiv. 10.

— in exposed situations: J. M. Heppel, xxvii. 569; W. H. Barlow, 570; G. J. Symons, 570.

**Duration affected by the form of section: designing the section.** H. Conybeare, xxvii. 351.

**Expansion and contraction of rails in place.** J. Hawkshaw, xi. 283.

**Life of iron rails, Great Northern railway, dependent on tonnage.** R. Price Williams, xlv. 153. Table of rails maintained and renewed, 155.

— or duration of iron rails: W. H. Barlow, ix. 390;—G. P. Bidder, xi. 293; J. Hawkshaw, 294.—Dependent on quality: G. P. Bidder, xiv. 487.—Varying with quantity of traffic: H. Carr, xiv. 442;—J. Hawkshaw, xxiv. 496.—R. Price Williams, xxv. 354; W. P. Struvé, 378; G. P. Bidder, 450. Newcastle and Carlisle railway: T. E. Harrison, xxv. 412. London and North Western railway: R. Price Williams, 358, 364. Midland Great Western railway: G. W. Hemans, 399. Great Northern railway: R. Price Williams, 359, 361; table, 371. Midland railway: W. H. Barlow, 408; J. S. Crossley, 414. Lancashire and Yorkshire railway: R. Price Williams, 362; table, 372. Paddington station: W. P. Struvé, 377. Hamm station, Cologne-Minden railway: T. A. Rochussen, 396. Thame valley railway: J. S. Crossley, 415.

**Loss of weight of iron rails by exposure to air in India.** J. M. Heppel, xxiv. 87.

**Machine for bending rails.** E. Schrabetz, lii. 326.

**Maintenance of iron rails, South Australian railway.** R. C. Patterson, lvi. 29.

**Manufacture of iron rails at Crewe works.** R. Price Williams, xxv. 364.

“ — and wear of rails.” O. P. Sandberg, xxvii. 320. (1 plate).—Discussion: C. P. Sandberg, xxvii. 340, 404, 408; Sir C. Fox, 342; T. E. Harrison, 343; W. R. I. Hopkins, 346; J. Fowler, 348; I. L. Bell, 349; J. Deas, 352; W. Menelaus, 353; J. Shaw, 354; C. B. Vignoles, 355; D. Forbes, 356; H. Conybeare, 357; G. B. Bruce, 374; R. P. Brereton, 375; T. E. M. Marsh, 375; J. Strapp, 378; P. Ashcroft, 378; W. Mills, 379; Jos. Taylor, 379; W. Adams, 380; Z. Colburn, 380; W. Bragge, 381; R. Price Williams, 381; G. P. Bidder, 384; T. A. Rochussen, 385; B. Baker, 386; Capt. W. H. Tyler, 387, 392; J. A. Longridge, 390; J. Boyd, 392; F. D. Banister, 394; W. R. Adams, 396; E. A. Cowper, 398; F. Stileman, 401; J. Brunlees, 402; J. Mitchell, 402; J. M. Heppel, 403; W. M. Wilson, 404.

— of rails. C. May, xvi. 281;—F. J. Bramwell, xlv. 202.

**Process of manufacture of iron rails in South Wales:** R. Price Williams, xxv. 363; W. P. Struvé, 377. Defects of the process: C. W. Siemens, 379; C. B. Vignoles, 381; Sir C. Fox, 381.

**Reversibility of double-headed rails:** G. W. Hemans, xvi. 272; J. E. Errington, 278; J. Locke, 294;—J. Samuel, xviii. 427, 429;—E. B. Webb, xix. 245, 256; J. E. Errington, 257;—R. B. Dockray, xx. 281;—J. Brunlees, xxi. 348, 350; Col. Yolland, 404. On the Taunus railway: C. B. Vignoles, xxii. 30; xxv. 380;—F. W. Webb, xxv. 410; J. Cubitt,

**Permanent way—rails, iron—continued.**

- 410; T. E. Harrison, 410; J. S. Crossley, 415;—M. Caillé, xxxix. 331.
- Riveted joints of rails: expansion counteracted. I. K. Brunel, ix. 404; J. Locke, 407;—I. K. Brunel, xi. 275, 286; Capt. W. S. Moorsom, 280; W. B. Adams, 288; G. H. Phipps, 294. Riveted bridge rails, Bordeaux and Bayonne railway: F. R. Conder, xvi. 374, 375. Barlow rail: C. Sanderson, xvi. 383; E. Price, 384.
- Seaton's rail. W. B. Adams, xvi. 243.
- Table of forms of rails exported from England. R. B. Dockray, xx. 280.
- Utilisation of old rails in construction. T. Willkomm and R. Kolodziej, liii. 312.
- Vignoles' rails. On the best form, dimensions, and proportions. W. Shelford, xxxix. 109.
- Wear of iron rails:—Camden station, by Mr. H. Woodhouse: C. P. Sandberg, xxvii. 323, 334, 340. Great Northern railway: C. P. Sandberg, 323, 324. Swedish railways: C. P. Sandberg, 324. North Eastern railway: T. E. Harrison, 343. North British railway: J. Deas, 352. London and South Western railway: H. Conybeare, 358; J. Strapp, 378. South Wales railway: R. P. Brereton, 375. Great Western railway, &c.: T. E. M. Marsh, 376. South Eastern railway: P. Ashcroft, 378. Erie railroad: Z. Colburn, 380. Oberhausen: T. A. Rochussen, 385. Grand Trunk railway: Capt. H. W. Tyler, 387. London and Brighton railway: F. D. Banister, 394. F. Stileman, 401.
- on wooden sleepers. P. W. Barlow, ix. 404; J. Locke, 405.
- varying with the speed. G. H. Phipps, xxv. 400, 408; F. J. Bramwell, 407; O. B. Lane, 427; G. P. Bidder, 450.
- See *Permanent way*, general references (p. 182).

**PERMANENT WAY—RAILS, STEEL:—**

- Historical notice. T. A. Rochussen, xxv. 396.
- Analysis of steel rails, by E. Ryley: R. Price Williams, xlv. 158, 192; tables, 157, 183, 184. Test for constituent carbon, by Mr. Willis: Dr. C. W. Siemens, 204.
- Bessemer steel rails, chemical composition and physical properties of. C. B. Dudley, lvi. 366.
- "Bessemer steel rails." J. T. Smith, xlii. 69.—Discussion on this and W. Hackney's Paper on "The manufacture of steel" (*seq.*) W. Hackney, xlii. 76, 110, 127; J. T. Smith, 76; Dr. J. Percy, 78, 84; E. Ryley, 80, 84; I. Lothian Bell, 81; A. Wilson, 82; B. Walker, 84; E. Williams, 87; R. Price Williams, 88; Dr. C. W. Siemens, 91; Sir J. Hawkshaw, 95, 103; F. J. Bramwell, 96; W. H. Barlow, 97, 107; Dr. W. Pole, 99; E. A. Cowper, 103; T. R. Crampton, 105; Sir J. Coode, 106; Sir J. Whitworth, 106; R. Aitken, 108; J. James, 109; R. C. Rapier, 110; T. E. Harrison, 122; C. P. Sandberg, 123; W. W. Evans, 127; W. H. Maudslay, 127.
- On the length of. H. Wernich, xlviii. 288.
- Life, or duration of. Camden station: R. Price Williams, xxv. 365, 377; W. P. Struvé, 378. Crewe station: F. W. Webb, 409. Lancashire and Yorkshire railway, table: R. Price Williams, 372.
- On the life of rails, especially of. H. Funk, xlvii. 317.

Permanent way—rails, steel—*continued.*

- Bessemer steel rails. Wear of. J. T. Smith, xlii. 72, 74, 77; R. Price Williams, 89.
- *versus* iron rails. R. Price Williams, xxv. 365; tables, 8, 14, 372; W. P. Struvé, 378; G. Berkley, 384, 385; F. Fox (Bristol), 393, 394; H. Bessemer, 403; J. Hawkshaw, 405; R. Johnson, 405; T. E. Harrison, 411; J. S. Crossley, 415, 416; F. Stileman, 417; H. W. Schneider, 418; G. P. Bidder, 450.
- Camden station. R. Price Williams, xxv. 365, 377; W. P. Struvé, 378; G. Berkley, 382.
- Chemical composition of steel rails: I. L. Bell, xxvii. 349; W. Menelaus, 353; J. Boyd, 393; E. A. Cowper, 401; C. P. Sandberg, 407.
- Comparative life of iron and steel rails. R. Price Williams, xvi. 165.
- Duration of (various) steel rails on Prussian railways. H. Wernich, xlviii. 291.
- of steel rails, of various steels: Cologne-Minden railway, xlix. 308.
- of steel and iron rails, li. 311.
- Erie railroad, steel rails. Z. Colburn, xxvii. 381.
- Iron *versus* steel for rails and tires. C. W. Siemens, xxv. 379.
- Life of rails (iron and steel). A. Funk, lv. 391.
- Manufacture of steel rails. W. Hackney, xlii. 40; I. L. Bell, 82.
- of steel-headed rails at Zwickau in Saxony. A. Petzhold and H. von Waldegg, xli. 283.
- Re-rolling of rails in Sweden. C. P. Sandberg, xlvii. 321.
- Rüppel's rule for wear of steel rails. H. Fein, lii. 325.
- Section of steel rails as fixed for the Breslau and Freiburg railway. H. Fein, lii. 324.
- Sections of standard rails and fish-plates, Pennsylvania Railroad. C. D. Fox and F. Fox, xxxix., plate 4;—Capt. D. Galton, liii. 30.
- Steel-rail making in Russia, xlii. 309.
- Substitution of steel rails for iron rails. R. Price Williams, xvi. 147.
- Treatment of pig and phosphorated iron for the production of cast steel for rails and other purposes. M. Lencauchez, xl. 336.
- Uchatius steel rails. C. May, xvi. 287.
- Wear of steel and iron rails: T. E. Harrison, xlii. 122; C. P. Sandberg; 124. Results of inspection: C. P. Sandberg, xlii. 126. Comparative wear and tonnage:—London and Blackwall railway: A. A. Langley, xvi. 196; Nine Elms goods yard, 197; Köln-Minden railway: J. H. Funk, xlvii. 318.
- of steel rails, Camden station: R. Price Williams, xxv. 365, 377.—H. Woodhouse, xxvii. 341. Crewe station: F. W. Webb, xxv. 409, 410.—North British railway: J. Deas, xxvii. 352. London, Chatham, and Dover railway: W. Mills, xxvii. 379. North London railway: W. Adams, xxvii. 380.
- Crewe station, London and North Western railway. R. Price Williams, xvi. 155; tables of wear and tonnage, 156, 182.
- King's Cross station, Great Northern railway. R. Price Williams, xvi. 156, 158; tables of wear and tonnage, and analyses of rails, 157, 183–185.
- Metropolitan railway. R. Price Williams, xvi. 159; table of wear and tonnage, and analyses of rails, 186; J. Tomlinson, Jun., 200.
- and tonnage carried. South Eastern railway: R. Price Williams, xvi. 187. Taff Vale railway, 187.

**Permanent way—rails, steel—continued.**

Wear of steel rails in America. A. Welch, xlvii. 319.

Weight of steel rails: Steel rails *versus* iron rails. H. Bessemer, xxv. 402, 414; J. Hawkshaw, 405; T. E. Harrison, 411; F. Stileman, 417; H. W. Schneider, 418.

**PERMANENT WAY—RAILS, STEELED:—**

Dodds' steeled-headed iron rails. T. E. Harrison, xx. 280; B. Burleigh, 284; G. Berkley, 285.

Life and wear of steeled rails, Hamm station, Cologne-Minden railway: T. A. Rochussen, xxv. 396. North British railway: J. Deas, xxvii. 352. Bavarian State railways: A. Grau, xlv. 320.

Manufacture and durability of the steel-headed rails adopted on the Bavarian state railways. A. Grau, xlv. 318.

Steeled or compound rails *versus* iron rails: R. Price Williams, xxv. table 7, 372; T. A. Rochussen, 396.

Steel rails *versus* steeled rails. H. W. Schneider, xxv. 425.

**PERMANENT WAY—RAILS—STRENGTH OF RAILS:—**

Barlow saddle-back rails: W. H. Barlow, ix. 391. Strength, 392, 393, 399; J. Hawkshaw, 402; I. K. Brunel, 404; J. E. Errington, 407;—W. B. Adams, xi. 264.

Classification of tests: J. Price, xxxii. 197. Table of results of tests, 203; R. Price Williams, 212; G. Berkley, 215.

Comparative strength of steel rails made from hammered ingots and cogged ingots, tested by Mr. D. Kirkaldy. R. Price Williams, xlv. 159, 161; R. C. May, 194; W. B. Lewis, 195; C. P. Sandberg, 206.

— when drilled and when punched, tested by Mr. D. Kirkaldy. R. Price Williams, xlv. 160; tables, 162 to 164; R. C. May, 194; W. B. Lewis, 195; J. Tomlinson, Jun., 202; C. P. Sandberg, 206.

Dead pressure and falling tests for steel rails by the Northern Railway Company of France, xlii. 65.

— for rails: Queensland railways. C. D. Fox, xxvi. 58.

Direct and transverse strength of steel rails: Bessemer steel and ordinary steel, xlii. 64, 66.

Double-headed rails. W. H. Barlow, ix. 395.

— of Bessemer steel: Tests for transverse strength. G. Berkley, xxxii. 216.

Eggertz coloration test: C. P. Sandberg, xlii. 125;—H. A. Rosén, xliii. 411.

Experiments on steel rails (tensile and transverse strength of Vignoles rails). J. Van Hamel, li. 313.

Falling test, calculation for: W. H. Barlow, xlii. 97.

— for rails for Egypt. R. Stephenson, xi. 464.

Hardness and strength as affected by chemical composition. W. B. Lewis, xlv. 194; E. A. Cowper, 197; E. Riley, 198; Dr. C. W. Siemens, 203; C. P. Sandberg, 205.

Iron flanged rails, transverse strength of. R. Price Williams, xxxii. 208.

Iron permanent way: table of the results of experiments on the vertical stiffness of rails and rolled rail-bearers. F. Fox (Bristol), xx. 274.

Strength of Bessemer steel rails: Influence of punched holes. J. T. Smith, xlii. 70.

Permanent way—Rails—Strength of rails—*continued*.

Strength of steel rails, tested by Mr. D. Kirkaldy; tables, xlv. 188.

Table of the results of experiments on the vertical stiffness of rails and rolled rail-bearers. F. Fox (Bristol), xx. 274.

Tensile strength of Bessemer steel rails. G. Berkley, xxv. 386.

Test for steel rails by punching the rail. J. T. Smith, xlii. 70, 76; W. Hackney, 76; A. Wilson, 84; W. H. Barlow, 98; Dr. W. Pole, 102; E. A. Cowper, 104; C. P. Sandberg, 125.

Tests by falling weights and dead weights for transverse strength of iron rails. F. Stileman, xxv. 417. Steel rails, 417.

— of rails. J. M. Heppel, xxvii. 403; W. M. Neilson, 404; C. P. Sandberg, 406.

“Testing of rails; with a description of a machine for the purpose.” J. Price, xxxii. 192. (2 plates.)—Discussion: J. Price, xxxii. 204, 205, 217, 218; F. J. Bramwell, 205; C. W. Siemens, 206; R. Price Williams, 208; A. A. Langley, 212; E. A. Cowper, 213; C. B. Vignoles, 215, 217; G. Berkley, 215. Classification of tests: J. Price, xxxii. 197. Table of results of tests, 203; R. Price Williams, 212; G. Berkley, 215.

Transverse strength of rails. Steel, steel and iron, and iron rails, by Mr. D. Kirkaldy (diagrams): R. Price Williams, xxv. 365, 375; H. Bessemer, 403. Steel rails and iron rails: G. Berkley, xxv. 385.

— of steel rails, showing the influence of constituent of carbon, by Messrs. J. Brown & Co. R. Price Williams, xxv. 376; table 374.

— having different percentages of carbon, phosphorus, and manganese. M. Euverte, xlix. 363, 364.

— of Terrenoire phosphoric steel rails. A. L. Holley, liii. 243.

See *Permanent way*, general references (p. 182).

## PERMANENT WAY—SLEEPERS (CAST-IRON):—

Barlow, P. W. Cast-iron sleepers, by P. W. Barlow, ix. 394, 402. Strength, 401:—W. B. Adams, xi. 253; P. W. Barlow, 273, 278; Capt. J. L. A. Simmons, 286;—W. B. Adams, xvi. 247, 288; P. W. Barlow, 269; J. K. Arthur, 273; W. H. Barlow, 277.

Barlow, W. H., cast-iron bearing plates. W. B. Adams, xi. 254; W. H. Barlow, 279; Capt. J. L. A. Simmons, 286.

— cast-iron fish-joint sleeper. W. B. Adams, xvi. 248.

Bergue's, De, cast-iron sleeper: W. B. Adams, xvi. 250, 290; P. W. Barlow, 271; B. Burleigh, 274; J. E. Errington, 278. Bristol and Exeter railway: F. Fox (Bristol), xx. 270; C. H. Gregory, 278.

Day, J., bolted cast-iron longitudinal sleepers. W. B. Adams, xvi. 248.

Elastic cast-iron sleepers. W. B. Adams, xxiii. 423.

Greaves cast-iron surface-packed, or bowl sleepers. W. B. Adams, xi. 252; P. W. Barlow, 279; J. Hawkshaw, 284;—W. B. Adams, xvi. 245; P. W. Barlow, 270; J. Hawkshaw, 283;—J. Hawkshaw, xx. 275; F. Fox (Bristol), 286.

— Method of laying them. E. Price, xvi. 381.

— Oost of way. H. Greaves, xviii. 435.

— in India. G. B. Bruce, xviii. 423; J. Hawkshaw, 423; B. M'Master, xxii. 253.

— Durability in tropical climates—Pernambuco railway. G. O. Mann, xxiv. 11; J. Hawkshaw, 20; G. Turnbull, 23; C. B. Lane, 27; R. Aitken, 30.

**Permanent way—Sleepers (cast-iron)—continued.**

Greaves' bowl sleepers: Recife and São Francisco railway. W. M. Peniston, xxii. 396; C. B. Lane, 411. São Paulo railway: D. M. Fox, xxx. 41.

Hoby's cast-iron sleeper. W. B. Adams, xi. 255.

Reynolds's "hog-trough metals," or longitudinal iron sleepers. J. Reynolds, (T.) ii. 74;—J. Hawkshaw, ix. 403.—W. B. Adams, xvi. 245;—R. B. Dockray, xx. 280; F. Fox (Bristol), 286.

Samuel's wedge-trough cast-iron sleepers. W. B. Adams, xi. 255; xvi. 248;—P. W. Barlow, xvi. 271; G. W. Hemans, 272.

—cup-trough iron sleepers. J. Samuel, xviii. 427. Comparative cost, 429; G. P. Bidder, 434.

Summary of experiments on the strength of cast-iron sleepers, by the Permanent Way Company; table. P. W. Barlow, xvi. 271.

**PERMANENT WAY—SLEEPERS, WROUGHT-IRON:—**

Buck and Lacy's wrought-iron sleepers. W. B. Adams, xvi. 244.

Iron sleepers *versus* timber sleepers. W. H. Barlow, ix. 391; J. Hawkshaw, 402; I. K. Brunel, 403; P. W. Barlow, 404, 408;—J. Hawkshaw, xx. 275; J. Fowler, 277; C. H. Gregory, 278; T. E. Harrison, 279; B. Burleigh, 283; G. Berkley, 285; F. Fox (Bristol), 287; G. P. Bidder, 289;—F. Fox (Bristol), xxv. 395. India: C. Greaves, xxii. 259.

Longitudinal plate-iron sleeper, with inverted bridge-rail. F. Fox (Bristol), xx. 270.

Macdonnell's, J. J., longitudinal rolled-iron sleepers. W. B. Adams, xvi. 249. Four varieties, for Macdonnell's bridge-rail on the Bristol and Exeter, railway: F. Fox (Bristol), xx. 261, 263, 265, 267, 272, 275, 286; J. Fowler, 276; C. H. Gregory, 277; B. Burleigh, 284. Transverse strength, 267; table, 274.

Spencer's corrugated longitudinal sleepers. W. B. Adams, xvi. 252.

Use of cast and wrought-iron as a material for railway sleepers (the Vautherin, Hilf, and other sleepers). L. Kirsch, xlv. 252; also xlvii. 322.

See *Permanent way*, general references (p. 182).

**PERMANENT WAY—SLEEPERS (STONE):—**

Boring holes by machinery. J. Smith (Deanston), ii. (1842), 148.

Continuous stone sleepers, Bristol and Exeter railway. F. Fox (Bristol), xx. 271, 275, 286.

Durability of stone sleepers. J. Locke, ix. 406; W. H. Barlow, 407; J. E. Errington, 408.

Stone blocks, Manchester and Bolton railway. J. Hawkshaw, xx. 276.

—Tannus railway, Germany. R. Crawford, xxii. 24.

Use of stone blocks. W. B. Adams, xi. 247, 251; J. E. Errington, 291. J. Hawkshaw, 295; R. Stephenson, 296;—W. B. Adams, xvi. 244. Madras railway: B. McMaster, xviii. 420; Capt. W. S. Moorsom, 439.

**PERMANENT WAY—SLEEPERS (TIMBER):—**

Brazil. Native timber used for sleepers. Pernambuco railway. G. O. Mann, xxiv. 3, 13.

—Comparative advantages of rectangular and half-round sleepers, Per-  
o 2

**Permanent way—Sleepers (timber):—**

- nambuco railway. G. O. Mann, xxiv. 2, 3, 19; J. Hawkshaw, 19; J. Bethell, 32.
- Brazil.** Durability of creosoted sleepers: Pernambuco railway. G. O. Mann, xxiv. 2, 4.
- Use of Brazilian woods for transverse sleepers. W. M. Peniston, xxii. 396; C. B. Lane, 410; E. B. Webb, 413.
- Creosoted sleepers on the Great Eastern railway.** J. Bethell, xxii. 62.
- Durability of. T. E. Harrison, xx. 279; F. Fox (Bristol), 288;—J. Bethell, xxiv. 31; G. P. Bidder, 507;—T. E. Harrison, xxv. 412, 413.
- Manchester and Crewe railway:** J. Bethell, xviii. 430; H. Greaves, 435.
- Eastern Counties railway:** J. Bethell, xviii. 430, 435. **East Indian railway,** 430; cost, 431.
- *versus* uncreosoted sleepers. R. Sinclair, xviii. 433; G. P. Bidder, 434.
- J. S. Crossley, xxv. 415; R. Brotherhood, 416; G. P. Bidder, 451.
- Life of timber sleepers, creosoted and plain. W. H. Barlow, ix. 390.
- I. K. Brunel, 405;—J. E. Errington, xi. 291; G. P. Bidder, 293; J. Bethell, 296.
- Inflammability of. J. Bethell, xi. 296.
- Timber best suited for. J. Bethell, xviii. 430; J. Hawkshaw, 432; E. L. I. Blyth, 436; H. Maudslay, 438; W. B. Adams, 441.
- Durability of, in tropical climates:—W. Sowerby, xvi. 285;—C. H. Gregory, xxii. 63; J. Brunton, 464; G. B. Bruce, 485; G. Berkley, 486; H. P. Burt, xxiv. 22; A. M. Rendel, 22; G. Turnbull, 22. **India:** B. M'Master, xxii. 249; H. P. Burt, 255; G. Berkley, 256; C. H. Gregory, 260.
- Rationale and process of creosoting. J. Bethell, xviii. 430; xxiv. 31.
- Durability of timber sleepers preserved with arsenic:** Bolton and Preston railway. J. Brunlees, xviii. 435.
- of yellow pine sleepers. J. Hawkshaw, xii. 229.
- of impregnated sleepers. L. Huber, xlvi. 288.
- India.** Native wood, creosoted: J. Hawkshaw, xviii. 423, 432; J. Bethell, 430; A. M. Rendel, 437. Durability and cost of creosoted sleepers: B. M'Master, 419, 420. Kyanised sleepers, 420. Native wood ("Vengay") sleepers, 421. Durability, G. B. Bruce, 423.
- native wood suited for timber sleepers in Ceylon. Capt. W. S. Moorsom, xviii. 440.
- woods used for sleepers in India. J. J. Berkley, xix. 602.
- "— Woods used for sleepers on the Madras railway." B. M'Master, xxii. 241.—Discussion: H. P. Burt, xxii. 255; G. Berkley, 256; J. Walker, 256; J. G. C. Curtis, 257; F. W. Shields, 258; J. Coode, 258; A. Bryce, 258; A. Jenoure, 259; Col. Sale, 259; C. Greaves, 259; C. H. Gregory, 260.
- Durability of sleepers of native wood in. B. M'Master, xxii. 242, 251; J. Walker, 256; J. G. C. Curtis, 257; A. Bryce, 258; A. Jenoure, 259; Col. Sale, 259;—G. B. Bruce, xxiv. 21; A. M. Rendel, 22; G. Turnbull, 22.
- Deodar wood: J. Brunton, xxii. 463. Durability: W. P. Andrew, 482.
- Protection of railway sleepers in India from white ants by the vibration from passing trains. W. Sowerby, xvi. 285.—B. M'Master, xviii. 419;—F. W. Shields, xxiv. 33; J. Calvert, 35.



Permanent way—Sleepers (timber)—*continued*.

India. Durability of Burnettised sleepers in. J. Brunton, xxii. 495.

Jarrah-Jarrah wood sleepers, Port Augusta and Port Darwin railway. R. C. Patterson, lvi. 39.

Longitudinal *versus* transverse sleepers. J. Samuel, viii. 263; I. K. Brunel, 266, 268; P. W. Barlow, 268; J. Hawkshaw, 268; J. Pim, 269; G. P. Bidder, 269; Capt. W. S. Moorsom, 269; W. Harding, 270; T. H. Statham, 271; Maj.-Gen. Sir C. W. Pasley, 271;—J. Hawkshaw, ix. 403; I. K. Brunel, 403; J. Locke, 406; Capt. W. S. Moorsom, 408;—W. B. Adams, xi. 249; I. K. Brunel, 274; J. Hawkshaw, 283; Capt. J. L. A. Simmons, 286; G. P. Bidder, 293;—J. Hawkshaw, xvi. 380; J. Strapp, 382; G. P. Bidder, 385;—T. J. Woodhouse, xx. 277; T. E. Harrison, 279; R. B. Dockray, 281; W. H. Barlow, 282; P. Bruff, 283;—F. Fox (Bristol), xxv. 395; G. W. Hemans, 398, 414; J. Hawkshaw, 404.

— in hot countries. R. C. Patterson, lvi. 25; G. Berkley, 49.

— Preservation of, in Germany, with sulphate of copper. R. Crawford, xxii. 24.

— Merits of the system of. F. Fox (Bristol), xx. 260, 287; J. Hawkshaw, 275.

Preserved timber sleepers. P. W. Barlow, xi. 279.

São Paulo railway. Durability of native timber sleepers. J. Brunel, xxiv. 21.

Triangular wood sleepers, South Eastern railway. J. Pope ii. (1842), 72; W. Cubitt, V.P., 75.

See *Timber*—Preservation.

PERCOLATOR, hydrostatic, Loysell's, xiii. 416.

PERFORATOR, rock. See *Rock-drills*.

PETROLEUM :—

Chemical composition and heating power of petroleum oils, solid fuels, &c. O. C. D. Ross, xl. 161.

Combustion of petroleum oils. M. Barret, xxxix. 412.

Critical examination of the value of naphthaline and petroleum, as substitutes for cannel coal. Prof. A. Wagner, xli. 306.

Eames's system of petroleum furnace. Prof. H. Wurtz, xlii. 336.

Field boiler, performance of the, with petroleum as fuel. L. Olrick, lii. 197.

Gas from petroleum. See *Gas*, manufacture of—Petroleum, &c.

Petroleum region of the province of Kouban (Circassia). Colonel Romanowsky, xl. 352.

— as fuel, evaporative performance and efficiency of, for steam boilers. Prof. H. Fritz, xliii. 399.

— engines, their performance and efficiency. Prof. H. Fritz, xliii. 400.

— reservoirs at the docks of St. Ouen, near Paris. MM. Seraphin, l. 200. See *Fuels*.

PETROZCENE and its products. Dr. H. W. C. Tweddell, xlvii. 401.

PHONOGRAPH. A. Naudet and A. M. Mager, liii. 392.

PHOSPHATE MANURE MANUFACTURE, Grätz. H. Schwarz, xlii. 369.

**PHOTOGRAPHY:—**

Application of photography to trigonometric surveying, *xlvi*. 369.

Blue process for copying tracings. P. Barnes, *lv*. 443.

"Photography as applicable to engineering." A. Gordon, *i*. (1840) 57.—

Discussion: J. Cooper, *i*. (1840), 59; J. T. Cooper, 59.

**PHOTOMETER.** Description of a new universal photometer. C. Schafhaeuti, *i*. (1841), 101; selenium photometer, *lii*. 406.

— Photometric measurement of electric light. P. Heilmann-Ducommun, *xlvi*. 42. J. N. Douglass, *lii*. 71, 77.

**PHOTOMETRY.** See *Gas light*; *Light*, artificial.

**PIERS:—**

Close piers on sandy shores. J. Abernethy, *lv*. 51, 67; W. Parkes, 62; J. C. Hawkshaw, 66; C. Bergeron, 74.

— influence of parallel, in removing bars. See *Bars*.

Iron pier for road bridges. J. Gaudard, *lviii*. 311.

Protection of piers in sandy estuaries. J. Brunlees, *liv*. 115.

Relieving pier-walls from back pressure. J. Murray, *vi*. 279.

Amsterdam canal: North Sea piers. H. Hayter, *xlili*. 36;—J. Abernethy, *lv*. 68; H. Hayter, 70.

Birkenhead. "The design and construction of the south reserve piers and floating landing stage at Birkenhead." (S.) C. Graham Smith, *i*. 164.

Blackfriars. "An account of the Blackfriars landing pier" (timber). F. Lawrence, *ix*. 144.

Clevedon. "Description of a wrought-iron pier at Clevedon, Somerset." J. W. Grover, *xxxii*. 130. (1 plate.)—Discussion: see H. N. Maynard's Paper on New Ross Bridge (*Bridges*, wrought-iron).

Courtown, Wexford. Pier on screw-piles. A. Mitchell, *vii*. 126, 142; Capt. W. S. Moorsom, 142.

Danube. Provisional piers of timber and rubble at the Sulina mouth of the Danube. C. A. Hartley, *xxi*. 285, 293, 301, 306.

— Permanent piers, of blocks of concrete on a rubble base, at the Sulina mouth. Sir C. A. Hartley, *xxxvi*. 202.

— "Cribwork in the Black Sea:" proposed cribwork piers at the Sulina mouth. Sir C. A. Hartley, (S.) *xl*. 240.

Dover. Notices of construction of the pier. G. F. White, *xi*. 486;—J. Walker, *xvi*. 439;—Gen. Sir H. Jones, *xviii*. 100; J. Cooper, 102, 130; G. P. Bidder, 123;—D. Miller, *xxii*. 429, 431;—J. Murray, *xxiv*. 175.

Folkestone as a groyne. J. B. Redman, *lv*. 60.

Gravesend. "Account of the Gravesend pier." W. T. Clark, (T.) *iii*. 245.

— "An account of the new cast-iron pier at Milton-on-Thames, next Gravesend, in the county of Kent; with details of the mode of construction adopted in its erection." J. B. Redman, *iv*. 222. (2 plates.)—Discussion: J. B. Redman, *iv*. 246, 248; W. Fairbairn, 247; J. R. McClean, 247; W. T. Clarke, 248; Sir J. Rennie, 248; F. Braithwaite, 249; J. Simpson, 249.

— Specimens of timber from fender-piles from the Terrace pier. J. B. Redman, *iv*. 77, 239.

Greenock. Sea piers of the Albert harbour: cast-iron piles, concrete backing,

*Piers—continued.*

- stone facing. D. Miller, xxii. 424, 447; N. Beardmore, 411; J. G. C. Curtis, 433; W. Parkes, 447.
- Grimsby, Great, docks. Timber pier of the tidal basin. E. H. Clark, xxiv. 47.
- Hartlepool pier. J. Simpson, vi. 145.
- Holland: piers, or moles, constructed with fascines. T. C. Watson, xli. 166.
- Huelva. "The Huelva pier of the Rio Tinto railway." T. Gibson (2 plates), liii. 130.—Discussion: G. B. Bruce, liii. 159, 163; J. Dixon, 161; A. C. Pain, 162; J. Robinson, 162; Sir J. Ramsden, 162; T. Gibson, 163.
- Kilrush in the river Shannon. Description of the machinery for working the diving bell used for setting the masonry under water, at the extension of the pier. W. Vanderkiste, v. 245.
- Kingstown. Lt.-Col. H. D. Jones, ii. (1842), 124, 125; G. Rennie, 127; P. Henderson, 148;—W. A. Brooks, xxii. 444.
- Lyme Regis cob wall. Dr. Buckland, vii. 202.
- Mazagon pier, Bombay, of liquid concrete; constructed without a cofferdam. R. Aitken, li. 154.
- New Ferry and New Brighton. "Description of the new ferry and the New Brighton piers and landing stages on the river Mersey, near Liverpool." H. Hooper, xxviii. 217.—Discussion: J. Brunlees, xxviii. 226; B. Haughton, 226; F. J. Bramwell, 226; J. W. Bazalgette, 227; J. W. Grover, 228; N. Beardmore, 228; G. W. Hemans, 229; R. Mallet, 229, 231; J. B. Redman, 230; J. Brunlees, 230.
- Southend. "Description of the pier-head of the old Southend pier, and of the recent extension of the structure, with an inquiry into the nature and ravages of the 'Teredo navalis,' and the means hitherto adopted for preventing its attacks." J. Paton, ix. 23. (2 plates).—Discussion: J. Paton, ix. 40; C. Manby, 40, 54; Dean of Westminster (Dr. Buckland), 41, 47; J. Simpson, 43; W. Newton, 45; G. Edwards, 45; G. B. W. Jackson, 45; Dr. Lyon Playfair, 46; S. M. Peto, 48, 53; F. Whishaw, 49; L. Reeve, 49; Mr. Shepherd, 50; J. Bethell, 50, 52, 57; J. N. Warren, 52, 57; J. M. Rendel, 53; G. P. Bidder, 56.
- Southport. "Description of the pier at Southport, Lancashire." H. Hooper, xx. 292.—Discussion: J. Brunlees, xx. 298; C. B. Vignoles, 298; J. Hawkshaw, 298; G. B. Bruce, 298; A. Giles, 298; J. C. Curtis, 298; H. Hooper, 299; G. P. Bidder, 299.
- Sunderland. North and south piers. J. Murray, vi. 144, 272, 279.
- Whitehaven. South or west piers at Whitehaven. Sir J. Rennie, vi. 146; West and north piers. J. E. Williams, lv. 36.
- Tyne. Piers at the entrance of the river Tyne. T. E. Harrison, xviii. 519; G. P. Bidder, 521; R. Stephenson, 522.
- Wick. Piers for harbour, Pulteney Town. J. Bremner, iii. 117, 118.

**PIERS OF BRIDGES:—**

- Construction of piers in ashlar and rubble. G. B. Bruce, x. 225, 236; J. Hawkshaw, 233; G. H. Phipps, 235; Sir J. Rennie, 235; F. C. Penrose, 236; W. Cubitt, 236; R. Stephenson, 237; J. E. Errington, 238; J. M. Rendel, 239; G. P. Bidder, 239; A. S. Jee, 240; J. S. Valentine, 240; W. Radford, 240; J. Clegg, Jun., 300; J. Cubitt, 300; J. S. Russell, 301; J. Fowler, 302.

Piers of bridges—*continued*.

Cylinder piers, bridge over the Saone, Paris and Lyons railway. Sir C. Fox, xxv. 255.

— Cast-iron cylinders, Charing Cross bridge. H. Hayter, xxii. 513.

— Cylindrical *versus* pyramidal grouped piers of iron. G. H. Phipps, xxv. 251; Sir C. Fox, 256; J. Hawkshaw, 256.

— Craigellaohie viaduct. W. H. Mills, xxv. 230.

— Grand River viaduct, Mauritius railways. W. Ridley, xxv. 237, 240.

Use of cast-iron and wrought-iron in piers. J. W. Grover, xxviii. 228.

American truss bridges, ashlar masonry. J. R. Mosse, xxii. 311.

Dordrecht bridge, abutments and piers of. Sir J. G. N. Alleyne, xlii. 213.

Hartlepool Bay. Pier constructed of concrete blocks. J. Coode, xxv. 145.

India. Best form of pier for Indian rivers. F. M. Avern, liv. 99; R. G. Elwes, 113; J. Bell, 115.

— Piers of bridges in, protection of, with concrete blocks. Ravi bridge, R. T. Mallet, liv. 61, 119; W. Harvey, 108. With boulders and concrete blocks: Alexandra bridge, H. Lambert, 87, 120; W. H. Barlow, 108; G. B. Bruce, 111; G. Turnbull, 112; W. F. Potter, 112; R. G. Elwes, 113; J. Bell, 114; E. Benedict, 116. With boulders: Jhelum bridge, F. M. Avern, 98. Value of boulders, 99. Gorai bridge, E. Benedict, 116; Sir C. A. Hartley, 243.

Lisbon and Santarem railway. Ashlar and rubble, for bridges and viaduct. J. S. Valentine, xviii. 14.

New York, piers of Third Avenue bridge, xxvii. 281.

Queensland. Iron cylinder for bridge over the Bremer, Ipswich. C. D. Fox, xxvi. 54.

Saltash. "Description of the centre pier of the Saltash bridge on the Cornwall railway, and of the means employed for its construction."

R. P. Brereton, xxi. 268. (1 plate.)—Discussion: R. P. Brereton, xxi. 275; J. Cochrane, 275; F. Lawrence, 275; J. Hawkshaw, 276.

Savannah river, Georgia, U.S., piers of bridge across, xxvii. 282.

Tewkesbury. Concrete piers in caissons, for a bridge near Tewkesbury, Capt. W. S. Moorsom, iii. 61, 63.

Tynemouth. Concrete used for repair of North pier, P. J. Measent, xlv. 149. See *Bridges; Foundations*.

## PILES AND PILE-DRIVING.—

Action of marine worm on native timber, Bay of Rio de Janeiro. E. B. Webb, xxii. 413.

Advantage of quick blows. Sir C. Fox, xxvii. 299.

Apparatus for cutting off heads of piles under water. Chev. F. W. Conrad, iii. 189.

Cast-iron piles, Victoria docks. W. J. Kingsbury, xviii. 446; J. Abernethy, 477; G. P. Bidder, 484.

— Duration of, in tidal rivers. R. Mallet, i. (1840), 71.

— Swing-bridge on the Wensum, Norwich. G. P. Bidder, v. 435, 438.

— Brunswick wharf. G. P. Bidder, v. 438.

— old Southend pier. J. Paton, ix. 25. Driven by swaying to and fro, 26, 44.

— "Memoir on the use of cast-iron in piling, particularly at Brunswick wharf, Blackwall." M. A. Borthwick, (T.) i. 195.

Piles and pile-driving—*continued*.

Cast-iron sheet-piling for foundations. W. J. Doherty, liv. 50.

Cresoted piles in harbour work: durability. J. Bethell, xviii. 432; R. Sinclair, 433; G. P. Bidder, 433; D. Stevenson, 436; M. Scott, 437; A. M. Rendel, 437; T. E. Harrison, 438; J. Abernethy, 438;—E. H. Clark, xxiv. 54.

— timber piles, Lowestoft harbour: preservation. R. Sinclair, xviii. 433; G. P. Bidder, 433.

“Driving of piles to resist the force of ice, tending to draw them from the ground.” (S.) J. W. James, xli. 191.

— with an intermediate punch, or dolly. J. M. Rendel, (T.) i. 102.

— with an intermediate dolly. W. Eckersley, xxvii. 318.—H. Conybeare, xxxii. 167.

Hollow cast-iron piles, Southport pier, sunk by hydraulic pressure: H. Hooper, xx. 294, 299. Test load, 295.

— for foundation of engine turntable, Bremen railway station, H. Bucking, liii. 339.

— piles. J. Gaudard, i. 127.

Irregularities of piles. W. J. Doherty, li. 141.

Kyanised piles: durability: J. Bethell, xviii. 432; J. Hawkshaw, 432; T. E. Harrison, 438.

Light rams *versus* heavy rams. J. M. Rendel, iii. 200; F. Giles, 200; J. Green, 200; T. Clarke, 201.

Memel *versus* elm piles. G. B. Bruce, x. 222, 223.

Oak and fir-piling for old city walls, Hull. J. Timperley, (T.) i. 49.

Pile-driving facilitated by a coating of slime. R. Rawlinson, xviii. 512.

— principles of action in. J. Timperley, (T.) i. 33.

— apparatus. H. Weber, xli. 257.

— machine, new, construction and working of. Prof. Lewicki, xl. 316.

— “Description of the piling-machine used at the Montrose Harbour Works.” J. Milne, communicated by G. T. Page, iii. 197.—Discussion: J. Milne, iii. 200; J. M. Rendel, 200; F. Giles, 200; W. Cubitt, 200; J. Green, 200; J. B. Hartley, 200; T. Clark, 201; C. B. Vignoles, 201; G. Rennie, 201.

— by hand, Ravi bridge. R. T. Mallet, liv. 62.

— by injection of water. MM. Stoecklin and Vétillard, liii. 312.

— by steam. Historical notice. G. Rennie, iii. 201.

— in clay, London bridge. Sir C. Fox, xxvii. 299, 301; Sir J. Rennie, 300.

Piles in clay, durability of. E. A. Cowper, xxvii. 577.

— on coral reefs: wood piles *versus* iron piles. W. Parkes, xxiii. 6, 26, 37; A. Gordon, 24, 36; C. B. Vignoles, 27, 36; G. W. Hemans, 30; J. G. C. Curtis, 32; H. Grissell, 35.

— in compact boulder gravel. T. D. Ridley, xxvii. 312.

— experimental, in quicksand. J. Brunlees, xvii. 443.

— sinking hollow, in quicksand, by hydraulic pressure, in Morecambe Bay. J. Brunlees, xvii. 444. Lifting, 448.

— in loose sand. J. A. Longridge, xxvii. 296; J. Brunlees, 310, 311.

— in shale and soft rock. J. Brunlees, xxvii. 310.

— sinking, on the water-jet system, South Reserve piers, Birkenhead. C. Graham Smith, i. 167.

— — by the water-jet. B. Wieck, lvi. 335.

**Piles and pile-driving—continued.**

Pile-sinking by the water-jet of a fire engine, at Bremen. H. Bucking, liii. 339.

Piling in Holland. J. Hawkshaw, xxvii. 295.

Ring engine, Lary bridge. J. M. Rendel, (T.) i. 101.

— *versus* crab engine. J. Timperley, (T.) i. 33.

Sheathing of piles. Copper sheathing for piling, Gravesend: J. Paton, ix. 36.

Efficiency of copper sheathing for piles in Brazil: E. B. Webb, xix. 245.

Iron scupper nails zincd: Sir C. Fox, xiv. 266. Iron nails, Cape of Good Hope: J. Calvert, xxiv. 35.

“Supporting power of piles; and on the pneumatic process of sinking iron columns, as practised in America.” W. J. McAlpine, xxvii. 275. (1 plate.)  
— Discussion: H. S. Bethell, xxvii. 294; J. Hawkshaw, 295; G. W. Hemans, 295; J. A. Longridge, 296; G. H. Phipps, 297; Sir C. Fox, 298, 300; Sir J. Rennie, 300; R. P. Brereton, 303; J. B. Redman, 304; A. Beazley, 306; J. Wright, 308; J. Brunlees, 309; T. D. Ridley, 311; G. J. Morrison, 313; G. B. Bruce, 314; J. M. Heppel, 314; W. Eckersley, 317.

System of driving piles of cofferdam, Great Grimsby docks, by stationary engines. E. H. Clark, xxiv. 40, 42.

Timber piles, Cape of Good Hope: preservation. J. Calvert, xxiv. 35.

Appleby Brothers' pile-driver. T. D. Ridley, xxxi. 12.

Murray's pile-cutter. T. D. Ridley, xxxi. 16.

Nasmyth's steam pile-driver *versus* hand-ram. G. B. Bruce, x. 222.

— pile-driver: W. J. McAlpine, xxvii. 277. Diagram of the movements of the ram of Nasmyth's pile-driver: J. M. Heppel, xxvii. 314. Working and merits of Nasmyth's steam pile-driver: T. E. Harrison, xviii. 494, 515; M. Scott, 509; J. W. Johns, 511;—W. A. Brooks, 512;—T. E. Harrison, xxxi. 23; T. D. Ridley, 24.

Riedinger's powder-ram. H. Kuhn, xliii. 330.

Scott's pile-driver at Blyth breakwater. M. Scott, xviii. 509.

— pile-driver *versus* Nasmyth's pile-driver. M. Scott, xviii. 510; A. J. Robertson, 513.

Sissons and White's pile-driver. T. D. Ridley, xxxi. 12.

“Spider,” The. H. E. Towle, xxxii. 70; J. Murray, 76.

York's pile-driver, with diagonal guides for the pile. D. Miller, xxii. 425.

**PILES—PILE-DRAWING :—**

Drawing hollow piles from sand. J. Brunlees, xvii. 448.

— piles in peat soil, liii. 339.

Floating derrick for drawing piles, Birkenhead. W. J. Doherty, li. 149.

Gallows for drawing piles, Dublin. W. J. Doherty, li. 144.

Hulk and winding-gear for drawing piles, Hull. W. J. Doherty, li. 150.

Ice-drawn piles. J. W. James, xli. 193, 194.

Machine for drawing piles, lv. 379.

**PILES, LOAD ON :—**

Cast-iron piles: G. P. Bidder, v. 428. Southport pier: H. Hooper, xx. 295.

Formulas for the safe load: Major Sanders, U. S., xxvii. 275, 307

Weisbach, 275, 280; W. J. McAlpine, 280, 304; Molesworth, 280; Com-

**Piles, load on—continued.**

parison, 280, 297, 306; Rankine, modified by G. J. Morrison, 313; J. M. Heppel, 316;—Major Sanders, U.S., xxxii. 166.

Load on piles in Holland. Sir J. G. N. Alleyne, xlii. 218. Formula for the load, 216.

— supported by piles, Junction dock, Hull, J. Timperley, (T.) i. 34.

— supported by screw-piles, A. Mitchell, vii. 118; J. B. Redman, 152.

— supported by piles. D. McN. Stauffer, lvii. 327.

— on piles: Foundation of quay-walls, Rotterdam, xlvii. 346.

— on screw piles: Huelva pier. T. Gibson, liii. 137; tables 144 to 158; G. B. Bruce, 159.

— on piles: Ravi bridge. R. T. Mallet, liv. 62.

Piles of creosoted timber: Table of tests for crushing strength. H. S. Bethell, xxvii. 294.

Safe load on piles. G. B. Bruce, x. 224.

Supporting power of piles: Perronet's rule. J. Gaudard, l. 123; C. Graham Smith, 169.

Weight supported by piles for foundations of Queen Carola bridge over the Elbe, near Schandau, lv. 350.

**PILES, RESISTANCE OF:—**

Drawing force of ice on wooden piles. J. W. James, xli. 193, 194.

Formula for resistance of piles. F. C. Barron, li. 243.

— and tables of the resistance of piles in various soils. J. W. James, xli. 193, 197–200.

Friction of piles in sand. Sir J. G. N. Alleyne, xlii. 218.

— in clay, and in silt. J. Gaudard l. 122.

Measure of resistance: H. Carr, x. 303; G. B. Bruce, x. 224. Swing-bridge at Bye: C. May, xi. 422.

Proof resistance of piles, Great Grimsby docks. E. H. Clark, xxiv. 42.

Resistance of piles, Junction dock, Hull. J. Timperley, (T.) i. 33.

**PILES, DISC. J. Gaudard, l. 127.****PILES, SCREW:—**

Cast-iron screw piles: ball-and-socket joint. J. Dixon, liii. 161.

— Huelva pier of the Rio Tinto railway. T. Gibson, liii. 133; G. B. Bruce, 159; J. Dixon, 161.

Driving screw-piles for viaduct at Eau Brink cut. W. Eekersley, xxvii. 317.

— in stiff material by Handyside and Co. W. Eekersley, xxvii. 318.

Mitchell's screw-piles. J. Gaudard, l. 126.

— Maplin Sand lighthouse. J. B. Redman, ii. (1842), 150;—A. Mitchell, vii. 118, 149.

Screw-piles, lighthouse in Morecombe Bay. A. Mitchell, vii. 119.

— for beacons. A. Mitchell, vii. 124.

— Courtown pier, Wexford. A. Mitchell, vii. 126.

— J. M. Heppel, xxiv. 193.

— Port Augusta and Port Darwin railway, South Australia. R. C. Patterson, lvi. 34, 35.

— sinking, at Birkenhead. C. Graham Smith, l. 167.

— Screw-pointed timber piles, by Ransomes and May. A. Mitchell, vii. 129.

Piles, screw—*continued*.

"Submarine Foundations; particularly the screw-pile and moorings." A. Mitchell, vii. 108.—Discussion: W. A. Brooks, vii. 132; A. Mitchell, 135, 144; J. Walker, 136, 143; Capt. Welbank, 138; J. Murray, 141; G. Rennie, 141; Capt. Moorsom, 142; J. S. Russell, 142; W. Cubitt, 144; Mr. Clarke, 144.

PIPE-DRAINAGE. See *Drainage*.

PIPES, flow of air through. See *Air*.

— Leakage of air in pneumatic despatch tubes. R. S. Culley and R. Sabine, xliii. 84.

PIPES: WATER-MAINS:—

Avoidance of shock in pipes carrying water subject to sudden arrest. J. Michaud, lvii. 350.

Deposit in pipes from a brewery. R. Davison, ii. (1843) 170.

Earthenware water-pipes. R. W. Mylne, xiv. 214.

Emission of heat from pipes. See *Steam engine*; *Warming* and ventilation of buildings.

Expansion and contraction of mains underground. J. Hawkshaw, xiv. 39; J. Simpson, 39; R. Stephenson, 41.

Flow of water through pipes. See *Water*, flow of, through pipes.

Fracture of mains by letting out air: T. Hawksley, xviii. 388. Double-beat safety-valve, 388, 402.

Joints of water-pipes. G. J. Munday, xiv. 35; W. B. Hack, 37; J. Simpson, 39, 41; R. Rawlinson, 40; N. Beardmore, 41; R. Stephenson, 41.

Laying pipes under water. G. J. Munday, xiv. 32, 37; J. Simpson, 40; Sir J. Rennie, 40.

Origin of the socket-joint for water-pipes. J. Simpson, xiv. 40; Sir J. Rennie, 40.

Parallelism of mains. T. Hawksley, xviii. 387, 397; R. Rawlinson, 396; W. Fairbairn, 401; J. F. Tone, 403.

Porosity of cast-iron pipes, and leakage of gas, air, and water through them.

G. Lowe, iii. 304; A. Murray, 304; J. Farey, 304; J. T. Cooper, 307;—J. T. Cooper, iv. 219; J. Farey, 220; G. Lowe, 220; A. A. Croll, 221.

Leakage of air: Capt. W. S. Moorsom, iv. 219.

Stoneware pipes, leakage of. J. Aird, xliii. 216.

— for water-mains. Sir J. Rennie, xiv. 40.

— for sewerage works at Tottenham. J. Pilbrow, xli. 173, 187; for sewerage works at Canterbury, xli. 187.

Submerged gas and water-mains. H. Janssen, xxxix. 387.

"Testing of pipes and pipe-joints in the open trenches, with a description of the Ossett waterworks." (S.) M. McC. Patterson, lvi. 277.

Waste by leaky mains. M. McC. Paterson, lvi. 277.

Wrought-iron *versus* cast-iron for water-pipes. W. Clark, lvi. 157.

— water-pipes in America. W. Clark, lvi. 155.

Amsterdam waterworks, hydraulic safety-valve for water-mains at. B. W. Croker, xv. 42.

Bombay waterworks water-mains: H. Conybeare, xvii. 562, 574; socket-joint, 564.



**Pipes: water-mains—continued.**

- Bremen waterworks water-mains, *xlvi.* 347.  
 Breslau, laying iron pipes under the river Oder at. Hr. Martin, *liii.* 327.  
 California, water-pipes at hydraulic gold mines. E. Sauvage, *xl.* 324.  
 Dublin waterworks, cast-iron mains. P. Neville, *xxxviii.* 42.  
 Geelong water supply water-main. E. Dobson, *lvi.* 123.  
 Hanover waterworks water-mains. H. Berg, *i.* 229.  
 Ischl, cement water-pipes at. A. Aigner, *xlii.* 290.  
 Liverpool waterworks. Fracture of pipes by compression. T. Hawkaley, *xviii.* 387; R. Rawlinson, 392.  
 — Triple sluice-valves, preventing concussion in the pipe. H. Maudslay, *xviii.* 401; T. Hawkaley, 401, 402.  
 Melbourne waterworks. Fracture of main passed through embankments, by unequal external pressure. M. B. Jackson, *xviii.* 372.  
 — Pressure regulators. M. B. Jackson, *xviii.* 374, 376, 377; T. Hawkaley, 387.  
 — Mains and service-pipes. M. B. Jackson, *xviii.* 371, 378.  
 Nágpúr waterworks. Cast-iron water-pipes. A. R. Binnie, *xxxix.* 9.  
 Paisley water supply, cast-iron pipes for: dimensions. A. Leslie, *xxxi.* 43. Testa, 44.  
 — Clay pipes for. A. Leslie, *xxxi.* 41, 43.  
 Paris, water-mains, for water supply of. G. R. Burnell, *xxv.* 488.  
 Pola harbour, laying a submarine water-pipe in. J. Prucha, *xliv.* 270.  
 Regensburg waterworks across the Danube and the Regen, laying of subaqueous mains of the. A. Thieme, *xlvi.* 322.  
 Salzburg waterworks water-mains, *xlvi.* 303, 305.  
 Sulzbach-Altenwald colliery. Water-pipes for hydraulic bars, to work pumping engines at the. H. Pfäehler, *xl.* 295.

**PITCH**, Trinidad, uses of, *xi.* 383.

**PLANE FIGURES** moment of inertia of. Prof. T. Reye, *xliii.* 329.

**PLASTER CASTS**, moulds for, *i.* (1841), 166.

**PLATINUM**, on the radiation of incandescent. J. Violle, *lvi.* 387.

**PLOUGHING BY ELECTRICITY**. H. Fontaine, *lvii.* 419.

**PLOUGHING ENGINES**, steam, J. Fowler and Co.'s. J. Head, *xxxvi.* 69.

**PLUMBAGO:—**

- Composition of plumbago. D. Mushet, *i.* (1840) 3.  
 Marine plumbago (softened cast-iron) D. Mushet, *i.* (1840), 3.  
 See *Iron*, cast, corrosion, &c.

**PNEUMATIC CRANE**, by Mr. Hague. H. Robinson, *xlix.* 21.

**PNEUMATIC DESPATCH:—**

- Historical notice. C. Siemens, *xxxiii.* 1;—R. S. Oulley and R. Sabine, *xliii.* 53. Early vacuum system of J. L. Clark, *xxxiii.* 18, 23, 27. Combined pressure and vacuum system of C. F. Varley, *xxxiii.* 2, 18; *xliii.* 53, 275.  
 Circuit system, with continuous air-current. Carl Siemens, *xxxiii.* 1; C. W.

Pneumatic despatch—*continued*.

- Siemens, 16; C. F. Varley, 19; J. L. Clark, 23; R. S. Culley, 24, 26; E. A. Cowper, 30.—Dr. C. W. Siemens, xliii. 135.
- Circuit *versus* radial system. Dr. C. W. Siemens, xliii. 140, 158; E. A. Cowper, 168; R. S. Culley, 174.
- Employment of hydrogen instead of air. F. J. Bramwell, xxxiii. 43;—Prof. W. C. Unwin, xliii. 155; R. Sabine, 178.
- “Experiments on the movement of air in pneumatic tubes.” C. Bontemps (translated by James Dredge), xliii. 105. (1 plate.)—Discussion on the two preceding Papers: Dr. C. W. Siemens, xliii. 135, 156; W. H. Preece, 140, 174; A. Sauvée, 145; J. W. Barry, 150; Prof. W. C. Unwin, 151; F. J. Bramwell, 160; E. A. Cowper, 166; J. Imray, 169; H. Eaton, 172; R. S. Culley, 174; R. Sabine, 175; Hr. Zelli, 179; Dr. Stephan, 184.
- Fan blast as a motive power. Carl Siemens, xxxiii. 4; W. Pole, 44.
- “Investigation of the motion of light carriers in pneumatic tubes, when the air is in continuous or permanent motion.” (S.) Prof. W. C. Unwin, xliii. 263.
- Laws of pneumatic transmission. Carl Siemens, xxxiii. 13; W. H. Preece, 34; F. J. Bramwell, 40, 52; W. C. Unwin, 45; W. H. Outler, 48; D. Thomson, 53; T. Hawksley, 53.
- Lead pipes *versus* iron pipes. R. S. Culley, xxxiii. 24.
- Plunger-pumps, for the pneumatic despatch, by Eastons and Anderson, xliii. 63.
- “Pneumatic despatch tubes: the circuit system.” Carl Siemens, xxxiii. 1. (2 plates.)—Discussion: C. W. Siemens, xxxiii. 16; R. S. Culley, 17, 24, 51; W. H. Barlow, 17; C. F. Varley, 18, 51; J. L. Clark, 23; E. A. Cowper, 30; W. H. Preece, 34, 55; F. J. Bramwell, 40, 52; W. Pole, 44; F. H. Ricketts, 44; W. C. Unwin, 45; T. Webster, Q.C., 48; W. H. Outler, 48; J. L. Thomas, 50; J. W. Barry, 50, 51; J. W. Bazalgette, 52; D. Thomson, 53; T. Hawksley, 53.
- Carl Siemens, xxxiii. 2, 12.—W. H. Preece, xliii. 141, 174; Dr. C. W. Siemens, 158; Dr. Stephan, 184.
- tube between the central telegraph station, and the Exchange building in Berlin.” Dr. Brix, xliii. 184.
- London. Carl Siemens, xxxiii. 1.—R. S. Culley and R. Sabine, xliii. 54. Operation of the system: H. Eaton, xliii. 172. Large mains as reservoirs of air: W. E. Rich, xlix. 52.
- Paris. C. Bontemps, xliii. 105, 116; W. H. Preece, 141, 143; A. Sauvée, 146. Paris and Versailles: A. Sauvée, 148.
- Vienna, xliii. 142, 146, 179.
- transmission of telegrams.” R. S. Culley and R. Sabine, xliii. 53. (2 plates.)
- telegraphs of Paris.” C. Bontemps, xliii. 116.
- Steam-exhauster for forming a vacuum. Carl Siemens, xxxiii. 10, 16; E. A. Cowper, 32; F. J. Bramwell, 42.
- Useful general approximate proportions for pressure-working. R. S. Culley and R. Sabine, xliii. 104.

PNEUMATIC HOIST for raising coal at Epinao collieries. Z. Blanchet, lvii. 380.

PNEUMATIC PROCESS of sinking foundations. See *Foundations*, cylindrical, sinking by the vacuum process.

**PNEUMATIC** process of sinking piles. See *Piles* and *Pile-driving*.

**PNEUMATIC SYSTEM** of raising minerals by exhaustion at Epinae collieries.  
Z. Blanchet, lvii. 380.

**PNEUMATIC TRANSMISSION** of power. See *Power*, transmission of.

**POINTS** and crossings, railway. See *Permanent way*—Points and crossings.

**POLYMER** for grading railways, lvi. 312.

**PONTOON**. Steam railway pontoon, Lake of Zurich, xlv. 286.  
— bridges. See *Bridges*.

**PORTABLE** steam engines. See *Agricultural engines* and *machines*.

**PORTLAND** cement. See *Cements*.

# **PORTS:—**

Aveiro. S. A. P. da Silva, xliii. 366.

Antwerp. New works at the port of. M. de Wael, lvii. 376.

Belfast, port of. Historical notice. T. R. Salmond, lv. 22.

— Table of docks and quays at the port. T. R. Salmond, lv. 29.

Blyth, port of; condition in 1862. J. Abernethy, xxi. 823.

Bristol, port of. Historical notice. J. B. Mackenzie, lv. 3; J. Abernethy, 49.

Calcutta, port of; its commerce: J. A. Longridge, xxi. 2. Navigation of the Hooghly and the Mutla, 20.

Genoa. The improvement and enlargement of the port of Genoa. F. Ciocca and V. Chiavacci, xlv. 271.

Havre, the port of. Baron Quinette de Rochemont, li. 371.

Ipswich. "On the river Orwell and the port of Ipswich." G. Hurwood, xx. 4.

London. "Description of the Port of London, and of the Works at the London Docks." R. Richardson, ii. (1842), 59.

Middlesbro' on Tees, town and port of: short description. G. Turnbull, v. 248.

Mutla, the new port on the. J. A. Longridge, xxi. 23; Col. Sale, 25; A. Henderson, 25; A. Giles, 29; A. S. Ayton, 31; H. Lloyd, 31; J. Borradaile, 31; G. P. Bidder, 32.

Port Said: dredging of the roadstead. F. de Lesseps, xliii. 362.

— state of the roadstead. F. de Lesseps, lvii. 375.

Rotterdam. Improvements of the entrance to the port of Rotterdam, lii. 369.

Swansea, Blyth, and Silloth. "Description of works at the ports of Swansea, Blyth, and Silloth." J. Abernethy, xxi. 309. (4 plates.)—Discussion: J. Murray, xxi. 335, 341; D. Stevenson, 337, 340; A. Giles, 337; T. E. Harrison, 338; Sir W. Armstrong, 338; Admiral Sir. E. Belcher, 339; J. G. C. Curtis, 340; J. Leslie, 341; Sir J. Rennie, 341; R. Rawlinson, 342; J. Abernethy, 342; J. Hawkehaw, 344.

— port of. Historical notice. J. Abernethy, xxi. 309; Admiral Sir E. Belcher, 339.

Venice, port of. Prof. G. Zanoni, xliii. 368.

— notes on the works of the maritime station at Venice, lviii. 381.

Whitehaven, Port of. Historical notice. J. E. Williams, lv. 36.

**POSTAL** communication. Transfer of letter bags: W. Carpmæl, i. (1838), 32.  
R. Stephenson: Address, xv. 133; 456.

**POTTERY:—**

Composition of kaolin, or China clay. A. Pellatt, ii. (1843), 154.

Tunnel kilns for burning pottery and tiles. xlii. 338.

**POWER** from various sources:—comparative cost. G. P. Bidder, xvi. 413. Production of power—coal *versus* gunpowder, xix. 451.

**POWER, TRANSMISSION OF:—**

Air, exhausted, for the transmission of power: pneumatic crane by Mr. Hague. H. Robinson, xlix. 21.

— compressed, for the transmission of power: proposed by Denys Papin. Dr. W. Pole, xlix. 37. Employment in tunnels for working rock-drills; see T. Sopwith's papers on the Mont Cenis tunnel, xxiii. 258; xxxvi. 1; and D. K. Clark's papers on the St. Gothard tunnel, xlii. 228; lvii. 239.

Machinery for the transmission of motion (power), used in the large factories of East Lancashire and West Yorkshire: wheels, shafting, ropes, &c. G. W. Sutcliffe, lviii. 255.

"Transmission of power to distances." H. Robinson, xlix. 1. (1 plate.)—

Discussion: G. R. Stephenson, xlix. 30, 58; E. A. Cowper, 30; O. Greaves, 30; Dr. C. W. Siemens, 31, 37; E. Matheson, 34; Lt.-Col. Clay, 36; Sir J. Hawkshaw, 36; F. J. Bramwell, 37; Dr. W. Pole, 37; H. Robinson, 37, 55; E. B. Ellington, 37; C. Wawn, 39; J. Mackenzie, 40; R. H. Tweddell, 42; T. Wrightson, 43; B. Walker, 46; Col. Martindale, C.B., 48; H. Davey, 49; J. O. Butler, 51; W. E. Rich, 51; W. H. Barlow, 52; H. V. F. Valpy, 53; J. L. Thomas, 53; C. J. Appleby, 59; R. Carr, 60; W. Daniel, 61; J. Durie, 62; M. Scott, 64.

— to a distance by means of dynamo-electric machines and electric conductors. Dr. C. W. Siemens, xlix. 33; Dr. P. Higgs and J. R. Brittle, lii. 51, 92; Dr. C. W. Siemens, 58, 80; Dr. J. Hopkinson, 68; Sir W. Thomson, 81.

— and distribution of motive power to great distances by electricity. A. Achard, lviii. 427.

See *Belts*; *Hydraulic machinery*; *Pneumatic despatch*; *Railways*—stationary-engine power; *Railways*, atmospheric; *Shafting*; *Ropes*, transmission of power by; *Wheels*, toothed.

**PRESSURE GAUGE.** See *Manometer*.

**PRINTING MACHINES.** "On printing machines, especially those used for printing 'The Times' newspaper." Prof. E. Cowper, ix. 409.

**PROJECTILES**, resistance of. See *Artillery*.

— resistance of air to. B. Britten, xix. 355; G. P. Bidder, 452.

**PROPELLER.** See *Fumific* impeller; *Hydraulic* propeller; *Screw* propeller.

**PUBLIC WORKS:—**

"Progress of public works engineering in foreign countries, as recorded in the Abstracts of Papers in the Proceedings during the years 1874–78." (S.) L. F. Vernon-Harcourt, lv. 275.

"Progress of machinery in foreign countries, as recorded in the Abstracts of Papers in the Proceedings during the years 1874–78." (S.) D. K. Clark, lv. 286.

Public works—*continued*.

"Progress of mining and metallurgy in foreign countries, as recorded in the Abstracts of Papers in the Proceedings during the years 1874-78." (S.) H. Bauerman, lv. 297.

"Progress in the application of electrical science to engineering purposes in foreign countries, as recorded in the Abstracts of Papers in the Proceedings during the years 1874-78." (S.) Dr. P. Higgs, lv. 308.

Brazil. "On the means of communication in the empire of Brazil; chiefly in reference to the works of the Mangaratiba Serra road, and to those of the Mauá, the first Brazilian railway." E. B. Webb, xix. 240.—Discussion: E. B. Webb, xix. 255, 256, 260; Capt. Moorsom, 255; G. P. Bidder, 255, 261; J. Brunlees, 256; E. Hopkins, 256, 259; J. E. Errington, 257; J. Hawkshaw, 258; G. B. Bruce, 258; J. Fowler, 259.

— "Public works in Pernambuco, in the empire of Brazil." W. M. Peniston, xxii. 385.—Discussion: W. M. Peniston, xxii. 409; E. De Mornay, 409; C. B. Lane, 409; J. T. Wood, 412; E. B. Webb, 413; F. W. Shields, 414; J. Whitfield, 415.

India. "Public works in the Bengal Presidency." Major-General B. Tremeneheere, xvii. 483.—Discussion: Gen. G. B. Tremeneheere, xvii. 514, 537; H. Conybeare, 514; C. Greaves, 522; G. Sibley, 524; J. Hawkshaw, 528; G. B. Bruce, 529; Gen. Boileau, 530; A. Henderson, 531; J. Locke, 537.

New Zealand. "Memoir on the public works in the province of Canterbury, New Zealand." E. Dobson, xxix. 99. (3 plates).—Discussion: C. H. Gregory, xxix. 122; G. W. Hemans, 122; C. B. Vignoles, 123, 125; C. Baynes, 123, 124; J. Abernethy, 124; J. M. Heppel, 124; E. A. Cowper, 125.

Prussia. Public works executed by the Prussian Government during the year 1877, lviii. 377.

United States and Canada. "Notes on public works in the United States and in Canada, including a description of the St. Lawrence and the Mississippi rivers and their main tributaries." (S.) Sir C. A. Hartley, xl. 163. (2 plates.)

## PULSOMETER:—

Efficiency of steam-vacuum pumps. J. Foster Flagg, xlviii. 310.

Pulsometer *versus* a Tangye pump, lvi. 372.

Working of the pulsometer pump (in shaft-sinking), lvi. 371.

## PUMPS:—

Archimedean screw. "On the archimedean screw for lifting water." W. Airy, xxxii. 1.—Discussion: see "Centrifugal pumps," by D. Thomson. (*Pumps*, centrifugal, p. 210.)

— pumps in Spain. W. Atkinson, xxxii. 54.

Brine-lifting pumps, brine springs, Elmen. H. Mehner, xlv. 334.

Comparison of low-lift pumps. W. Airy, xxxii. 6, 60.

Frictional resistance of reciprocating pumps. R. Davison, ii. (1842), 79.

Mahratta-moat pump in India. J. J. Berkley, xix. 608.

Piccotah pump, Southern India. E. Johnston, xxiv. 186.

Pump with balanced trapezium-valves: E. Galloway, iii. 96. With semi-elliptic valves, 96; G. H. Palmer, 98.

**Pumps—continued.**

Sand-pump. See *Excavating machinery*.

Slip of water through reciprocating pumps. B. Latham, liii. 122; G. R. Stephenson, 123; D. Thomson, 123; H. Davey, 125.

Square pump with triangular valves, by J. Perkins. E. Galloway, iii. 96.

Tables for calculating friction of pumps. W. Airy, xxxii. 15.

White's water-ballast pump. E. E. Allen, xiv. 331, 332.

See following sections; also, *Air-compressors*; *Pulsometer*; *Water*, lifting.

**PUMPS, CENTRIFUGAL:—**

Advantages of. N. Beardmore, xxxiv. 183; E. Welsh, 185.

Appold's at Lade Bank: River Witham drainage. E. Welsh, xxxiv. 179, 185; E. Woods, 182; N. Beardmore, 182; C. W. Siemens, 184; T. R. Crampton, 185.

Brass centrifugal pumps in sea water. Marseilles graving dock. T. Hawthorn, xxiv. 157.

"Centrifugal pumps." D. Thomson, xxxii. 26. (1 plate.)—Discussion on this and W. Airy's paper on the Archimedean screw (*Pumps*): W. Airy, xxxii. 41, 45, 46, 58, 60; Sir G. B. Airy, 44, 55; D. Thomson, 46, 55, 59; G. H. Phipps, 48; W. C. Unwin, 50; W. H. Allen, 53; W. J. Bazalgette, 54; W. Atkinson, 54; G. E. Eachus, 55; A. Murray, 57; J. L. Thomas, 57; C. B. Vignoles, 58; R. Moreland, Jun., 61.

"Centrifugal pump." (S.) W. C. Unwin (1 plate), liii. 249.

Discharge of centrifugal pump doubled by enlarging the ends of the discharge pipe. W. Ridley, xxv. 238.

Frictional resistance of centrifugal pumps. W. C. Unwin, xxxii. 50.

Gwynne pump for condensers of marine engines. G. R. Stephenson, xxxiii. 371.

— pumps and engines, Somerset docks, Malta. O. Andrews, xxxiii. 363.

New types of centrifugal pumps and turbines. M. Deceour, l. 234.

Researches on the efficiency of a centrifugal pump. M. Fischer, xi. 296.

"Theory of centrifugal pumps, as supported by experiment." (S.) The Hon. R. C. Parsons, xlvii. 267. (1 plate.)

— of the centrifugal pump. Prof. R. Escher, xlviii. 345.

— and construction of centrifugal pumps. Prof. E. Fink, lii. 384.

Work of a centrifugal pump. Abstract of notes upon the drainage of a flooded ore pit at Pirie Grove furnace, Pa. J. Birkenbine, lvi. 344.

**PUMPS—PUMPING ENGINES—OTHER THAN CORNISH:—**

"Direct-acting or non-rotative pumping engines and pumps." H. Davey, liii. 98. (3 plates.)—Discussion: H. Davey, liii. 115, 124; Dr. Pole, 115; F. J. Bramwell, 117; B. Latham, 120; G. R. Stephenson, 122, 127; D. Thomson, 123; W. H. Barlow, 127; E. Bainbridge, 127; F. E. Duckham, 128.

Direct-action pumping engine. J. Farcot, liii. 364.

Factor of safety for beams of pumping engines. R. Stephenson, vi. 224.

Force-pump, with tubular rods (Pumping engines). Prof. H. Undeutsch, liv. 347.

Pumping machinery for sewage. F. Target, liii. 208.

Rule for horse-power for draining off water by pumping. E. Sonne, lvii. 371.

Single-acting engine *versus* the crank engine. J. Simpson, i. (1837), 31;—J. Parkes, i. (1841), 150;—E. A. Cowper, xxiii. 61; W. S. Morris, 69;

**Pumps, Pumping engines—other than Cornish—continued.**

T. Hawkley, 103; A. Fraser, 107;—Dr. Pole, liii. 116; B. Latham, 120; G. R. Stephenson, 122; H. Davey, 125, 126.

Underground pumping engine at the Arnim coal pits at Planitz. (Single-acting plunger pumps.) B. Otto, lviii. 409.

Cartagena and Ferrol floating docks: engines and pumps. G. B. Rennie, xxxi. 303.

Clausthal, new water-pressure pumping engine at. C. R. Bornemann, xlv. 347. Fohnsdorf, underground pumping engine at. B. Hess, xlviii. 341.

Freyberg, Saxony, "Description of the water-pressure engines at." W. L. Baker, ii. (1843), 143.

Grimsby (Great), pumping machinery, graving dock. E. H. Clark, xxiv. 49, 51. Haarlem Lake. W. Husband, xxiii. 77, 80.

Illang, Bavaria, brine-pumping water-pressure engines, at. W. L. Baker, ii. (1842), 55.

Lambeth waterworks: Performance. J. Simpson, xxiii. 69. Reports of J. Field and E. A. Cowper, 70; S. C. Homersham, 75; W. Pole, 91.

Lawrence, Mass., U.S.A., trial of pumping engines for the waterworks at, W. E. Worthen, &c., xlvii. 353.

Liverpool Corporation waterworks: T. Duncan, xii. 465 to 474; 489 to 494. Cost of pumping, 492; tables, 493; consumption of coal and slack, table, 494.

London, main drainage of. J. W. Bazalgette, xxiv. 293, 303, 307, 309, 356; F. J. Bramwell, 326; G. H. Phipps, 339; J. Grant, 342.

Malta, Somerset dock: engines and pumps by Gwynne and Co., xxxiii. 363.

Marseilles: pumping engines and centrifugal pumps, graving docks. T. Hawthorn, xxiv. 156.

Rositz, direct-acting pumping engine at. J. Illeck, xlv. 349.

Staffordshire (South), performance of pumping engines at, waterworks. J. E. M'Connell, xxiii. 98.

Sulzbach-Altenwald colliery, near Saarbrücken, pumping engine with 'hydraulic rods' [water bars] at the. H. Pfähler, xl. 294; xliii. 404. Friction of the engine, 405.

Trafalgar Square waterworks: engines and pumps. C. E. Amos, xix. 23, 24.

St. Helen's Whiston pumping station. T. S. Stooke, xlix. 221.

"Witham, river, drainage: pumping machinery and works at Lade Bank."

E. Welsh, xxxiv. 178. (2 plates.)—Discussion: E. Welsh, xxxiv. 182, 185; G. W. Hemans, 182; E. Woods, 182; N. Beardmore, 182; J. B. Redman, 183; C. W. Siemens, 184; T. R. Crampton, 185.

**PUMPS—PUMPING ENGINES, CORNISH.** See *Steam engines*, Cornish.

**PUMPS—PUMP-VALVES OF CORNISH AND OTHER PUMPING ENGINES:—**

Annular valves, or valves of loose rings, by Hosking and by Jenkyn.

B. Hosking, ii. (1843), 195;—J. B. Jordan, iii. 90; J. Taylor, 92.

'Bishop's cap'-valve. J. Taylor, ii. (1843), 199;—J. B. Jordan, iii. 89; J. Farey, 94.

Buckets with packing of gutta-percha, at Liverpool waterworks. T. Duncan, xii. 492.

Button clack. J. B. Jordan, iii. 89.

Concussion of pump valves. R. Hosking, ii. (1843), 195; S. C. Homersham,

**Pumps—Pump-valves of Cornish and other pumping engines—continued.**

- 196; T. Wicksteed, 198; J. Parkes, 199;—J. B. Jordan, iii. 89, 91;—H. Davey, liii. 108.
- "Concussion of pump valves." Sir W. G. Armstrong, xii. 450.—Discussion: E. A. Cowper, xii. 456; T. Hawksley, 456, 457; J. S. Russell, 456, 457; W. G. Armstrong, 456; H. Maudslay, 456; D. Thomson, 456; I. K. Brunel, 457; E. Humphreys, 457; T. B. Crampton, 457; W. Brockedon, 458; J. M. Rendel, 459.
- "Construction of valves used in pumps for raising water." S. C. Homersham, ii. (1843), 195; iii. 95, 37.
- Darlington's cylindrical single-beat valve. J. B. Jordan, iii. 90; J. Taylor, 92.
- "Description of annular valves used for pumps for waterworks, &c." R. Hosking, ii. (1843), 195.
- Double-beat valve, by Harvey and West. S. C. Homersham, ii. (1843), 196; T. Wicksteed, 198; J. Glynn, 199; J. B. Jordan, iii. 90; J. Taylor, 92.
- Improved valve: H. Davey, liii. 107.
- Employment of indiarubber in pump valves. H. Maudslay, xii. 456; D. Thomson, 456; E. Humphrys, 457; W. Brockedon, 458.
- Flap, or butterfly valve. J. Taylor, ii. (1843), 199; J. B. Jordan, iii. 89.
- Loose ring valves, Potadam waterworks. W. H. L. Green, iv. 384.
- Multiple-ring valve, by J. Simpson. S. C. Homersham, ii. (1843), 196; J. Taylor, 198.
- Palmer and Perkins's balanced disc valve. J. B. Jordan, iii. 90, 95, 97, J. Taylor, 92; E. M. Perkins, 93; G. Lowe, 94; E. Galloway, 96; S. C. Homersham, 97; G. H. Palmer, 97.
- Pump valves of Cornish engines: classification. J. B. Jordan, iii. 88.—Discussion; J. Taylor, iii. 91; E. H. Perkins, 93; G. Lowe, 94; J. Farey, 94; J. B. Jordan, 95, 97; S. C. Homersham, 95, 97; E. Galloway, 96; G. H. Palmer, 97.
- for pumping engines. T. Duncan, xii. 491.—H. Davey, liii. 104, 107.

**PYRENEES**, central, the passes and geology of the. M. Mille, xli. 233.

**PYROMETER :—**

- Houldsworth's pyrometer, for the temperature in flues of steam boilers. C. W. Williams, xiii. 402; J. Hawkshaw, 407.
- New pyrometer. Dr. E. Buchner, lviii. 434.
- Pyrometers. F. Fischer, lviii. 433.

**QUANTITIES AND COSTS—BREAKWATERS :—**

- Aberdeen new south breakwater. Quantities and cost. W. D. Cay, xxxix. 139, 155; W. Parkes, 147.
- Algiers, mole. Cost. J. Murray, xxiv. 173.
- mole at. Cost. J. Murray, xviii. 137.
- without cofferdams. Quantities and cost. D. Miller, xxii. 433, 434.
- Australia. Port Elliott, Encounter Bay, South Australia. Cost. W. B. Hays, xviii. 143.
- Holdfast Bay, Adelaide. Cost. W. B. Hays, xviii. 144.
- Breakwaters. Cost. M. Scott, xviii. 86, 153 to 161; T. R. Winder, 94; J. Coope, 102, 110; Mr. Wells, 104; J. Murray, 105, 106, 109; Sir J. Rennie, 117.
- Blyth. Cost. J. Abernethy, xxi. 322.



Quantities and costs—Breakwaters—*continued*.

Cherbourg. Quantities and cost. J. Murray, xviii. 140.

Holyhead. Cost. J. Hawkshaw, xviii. 118.

Keyham dockyard, caisson. Quantities and cost. W. Fairbairn, xiii. 453; W. Scamp, 457.

Kurrahee, Manora breakwater. Quantities and cost. W. H. Price, xliii. 17, 19.

Marseilles. Mole at La Joliette. Cost. J. Murray, xviii. 136.

— — — Cost. J. Murray, xxiv. 173, 175; Sir J. Rennie, 177.

Plymouth. Quantities and cost. W. Stuart, i. (1841), 161, 162.

Portland. Cost. M. Scott, xviii. 86, 158; A. J. Robertson, 109; J. Coole, 102, 110; G. P. Bidder, 125.

Tees. South Gore breakwater. Quantities. J. Taylor, xxiv. 71.

## QUANTITIES AND COSTS—BRIDGES (CAST-IRON):—

Bishop Auckland and Weardale railway. Trussed girder. Quantities and costs. J. Storey, iii. 59.

Ouse, Hull and Selby railway, cast-iron bridge, with one opening arch, over the. Quantities. W. B. Bray, iv. 87.

Rochester. Cast-iron bridge. Cost. Sir C. Fox, x. 366.

Seine, Andé, cast-iron bridge across the. Cost. R. Bonnin, xlv. 244.

Shannon, Portumna, cast-iron bridge across the. Cost. T. Rhodes, iii. 100.

Tewkesbury, Birmingham, and Gloucester railway. Cast-iron bridge. Capt. W. S. Moorsom, iii. 61.

## QUANTITIES AND COSTS—BRIDGES AND FOUNDATIONS (WROUGHT-IRON):—

Cylinder foundations. Cost. H. Funk, xlix. 300.

Foundations. Cost. J. Gaudard, i. 140–145.

American iron bridges. Quantities and cost. Z. Colburn, xxii. 541, 549, 550, 555, 557.

— Bridges in the United States. Cost. Sir C. A. Hartley, xl. 168 to 175.

Ballysimon, Waterford and Limerick railway, iron lattice bridge at. Cost. Capt. O'Brien, xi. 12.

Basle, bridge over the Rhine at. lvii. 330.

Bremen. Iron lattice bridge across the Weser. Quantities and cost. E. Böttcher, xlix. 295.

Charing Cross railway. Iron bridge. Quantities and cost. H. Hayter, xxii. 519, 521, 523, 525.

— Iron bridge, City terminus. Quantities and cost. J. W. Barry, xxvii. 418.

Danube, foundations of bridge over the, Poikam. Cost. W. Wittman, xl. 267.

— for the Buda-Pesth railway. J. Seefehlner, i. 293.

Dublin and Drogheda railway. Wrought-iron lattice bridge. G. W. Hemans, iii. 64.

Düsseln, foundations of a bridge over the Ruhr at. Hr. Wiebe, lii. 306, 307.

Elbe, Tetschen, railway iron lattice bridge over the. Cost. Prof. J. Brick, xlii. 304.

— Queen Carola bridge over the, near Schandau. Hr. Hofmann, lv. 350.

Germany. Iron lattice bridges. Quantities and cost. R. Crawford, xxii. 17, 20, 22; C. B. Vignoles, 27; R. Mallet, 38.

Quantities and costs—Bridges and foundations, wrought-iron—*continued*.

- Glasgow. Dock-wall and cylinder-foundations. Cost. J. F. Bateman, xxxiv. 29; xxxv. 203.
- Gorai bridge. Cost. J. T. Wood, xxxiv. 33; B. Leslie, 41.
- Japan. Bridges on the Kobe-Osaka railway. W. F. Potter, lvi. 3.
- Kentucky river bridge, Cincinnati Southern railway. T. C. Clarke, liv. 185.
- Königswart, near Wasserburg, iron bridge over the river Inn at. C. Schnorr v. Carolsfeld and A. Rottmüller, lv. 347.
- Lucerne. Iron lattice bridge, over the Reuss. J. Gaudard, lviii. 317.
- Madras railway, Chey-Air bridge. Quantities and cost. E. Johnston, xxiv. 187.
- Pennair bridge. Quantities and cost. E. W. Stoney, xxix. 386, 390.
- Mayenne, Château-Gontier, bridge over the. Cost. M. Legras, xxxix. 394.
- Moerdijk bridge, Antwerp-Rotterdam railway. Quantities and cost. M. Baude, xlv. 280.
- New Ross. Lattice iron bridge. Quantities and cost. H. N. Maynard, xxxii. 151.
- Ohio bridge, Cincinnati Southern railway. T. C. Clarke, liv. 182.
- Paddock viaduct, and canal (segmental) bridges, Liverpool. Iron lattice bridges. Cost. J. Hawkshaw, xi. 13.
- Pin-connected bridgework. T. C. Clarke, liv. 193.
- Pontoon bridge, Midland Great Western railway. Quantities and cost. R. Mallet, ix. 351.
- Portage, Erie railway. Iron bridge. Quantities and cost. G. S. Morison, xlvii. 306.
- Posen. Iron bridge across the Wartha. Quantities and cost, xlix. 298, 299.
- Punjab Northern State railway. Alexandra bridge. H. Lambert, liv. 92; H. Lee-Smith, 119.
- Jhelum bridge. F. M. Avern, liv. 97, 98, 102, 105, 106, 121; W. Harvey, 116.
- Ravi bridge. R. T. Mallet, liv. 70; H. Lee-Smith, 109.
- Rajpootana (State) railway. Bridges. Cost. H. Bell, l. 154.
- Riga. Lattice bridge over the Dwina. Quantities and cost, xlv. 279.
- Rugby and Leamington railway. Iron lattice bridge. Quantities and cost. W. T. Doyne, ix. 354, 356.
- St. Louis bridge over the Mississippi. M. Lavoinnie, li. 296.
- St. Petersburg. Iron bridge across the Neva, xliii. 335.
- Saulze bridge. Foundations. Quantities and cost. P. Bonhomme, xlv. 245.
- Shannon, iron bridge across the. Cost. G. W. Hemans, xxi. 266.
- Taff, Iron lattice bridge over the. Aberdare Iron Company. Quantity and cost, xi. 11.
- Victoria. Iron bridge. Victoria station and Pimlico railway. Quantities and cost. W. Wilson, xxvii. 65, 67, 119; C. D. Fox, 74, 81.
- Warren Girder Bridge, Newark Dyke. Quantities and cost. J. Cubitt, xii. 604; G. P. Bidder, 609.
- Wylam bridge. W. G. Laws, lvi. 270.

## QUANTITIES AND COSTS—BRIDGES (STONE):—

- Occupation bridges. Cost. Capt. W. S. Moorsom, iii. 60.
- Allanton. Stone bridge over the Whitadder. Cost. J. T. Syme, iii. 102.
- Berlin. Belle Alliance bridge, brick and stone. Cost. xlvii. 311.

**Quantities and costs—Bridges (stone)—continued.**

- Brazil. Stone bridge, Mangaratiba Road. Cost. E. B. Webb, xix. 250;  
 Capt. W. S. Moorsom, 255; G. P. Bidder, 255.  
 Chester. Stone bridge across the Dee. Cost, (T.) i. 213.  
 Dresden. Albert bridge. Cost. M. Hacquard, xlix. 205.  
 Kingston. Bridge over the Thames (stone and brick). Cost. J. B. Birch,  
 ii. (1842), 184.  
 Leeds. Wellington bridge, of stone, over the Aire. J. Timperley, iii. 106.  
 Lucens. Stone bridge over the river Broye. J. Gaudard, lviii. 310.  
 Tullow bridge, alterations. Cost. C. Forth, ii. (1842), 166.  
 Vevey. Concrete bridge. J. Gaudard, lviii. 311.  
 Victoria bridge, over the Wear, Durham Junction railway. Quantities and  
 costs, ii. (1843), 98.  
 Westminster bridge, old. Cost. F. Whishaw, i. (1838), 44.  
 York, Newcastle and Berwick railway. Royal Border bridge. G. B. Bruce,  
 x. 225, 226, 237.

**QUANTITIES AND COSTS—BRIDGES (SUSPENSION):**

- Clifton suspension bridge. W. H. Barlow, xxvi. 247.  
 Montrose. Suspension Bridge. Quantities and cost. J. M. Rendel, i. (1841),  
 122, 126, 127.  
 Niagara, railway suspension bridge across the. Quantities. C. Manby,  
 xiv. 459.

**QUANTITIES AND COSTS—BRIDGES (SWING); LIFT BRIDGES; FLOATING BRIDGES:—**

- Cast-iron swing-bridge over the Spaarne, Haarlem. Cost. Chev. F. W.  
 Conrad, iii. 187.  
 — over the Wensum, Norwich railway. Quantities. G. P. Bidder, v.  
 434, 437.  
 Hooghly floating bridge. B. Leslie, liii. 11, 26; Sir G. Campbell, 17;  
 J. Dixon, 21.  
 Wrought-iron swing bridge, Leith. J. Price, lvii. 15, 16.  
 — docks, Marseilles. Cost. M. Barret, xlii. 306.  
 — Marseilles. J. Price, lvii. 15, 16.  
 Vertical lift bridge. B. B. Stoney, lviii. 285, 286.  
 — over the Grand Surrey Canal, London, Brighton, and South Coast rail-  
 way. Cost. R. J. Hood, ix. 309.

**QUANTITIES AND COSTS—BRIDGES (TIMBER):—**

- American Timber bridges. Quantities and cost. J. R. Mosse, xxii. 306–317.  
 Z. Colburn, 319, 321.  
 Amsterdam–Rotterdam railway. Trellis timber bridges. Chev. F. W. Conrad,  
 iii. 189, 190, 191.  
 Birmingham and Gloucester railway. Cost. Capt. W. S. Moorsom, iii. 64.  
 Don, stone and timber bridges over the, and the canal, Sprotbrough. Cost.  
 H. Carr, x. 305.  
 Royal Border bridge. Timber (temporary) bridge. Quantities and cost.  
 G. B. Bruce, x. 230.

**QUANTITIES AND COSTS—CANALS:—**

- Anderton, river Weaver. Hydraulic canal-lift. Cost. J. W. Sandeman,  
 xlv. 126.

**Quantities and costs—Canals—continued.**

- Cavour canal. Cost. M. Oppermann, xli. 292.  
 Dundee, crane, 30-ton, at. Quantities. J. Leslie, i. (1841), 56.  
 Holland. Locks, Great North Holland canal. Quantities and cost. G. B. W. Jackson, vi. 92-94.  
 Marseilles canal. G. Wilson, li. 221.  
 Mosel-Saar canal. Cost. H. Knobloch, xxxix. 388.  
 Soonkésala canal. Cost. J. H. Latham, xxxiv. 87.  
 Spain. Henares canal. Costs. G. Higgin, xxvii. 489.  
 — canals in. Cost. J. D. Barry, xxvii. 520.  
 Suez canal. Quantities and cost. J. Abernethy, xxvi. 454.  
 Ulster Canal. Cost. T. Casebourne, ii. (1842), 53.  
 United States, canals in the, and in Canada. Cost. Sir C. A. Hartley, xl. 177-180, 197, 201.  
 Verdon canal. G. Wilson, li. 225.

**QUANTITIES AND COSTS—COFFERDAMS:—**

- Cofferdams. Cost. G. W. Hemans, xxxi. 17; J. B. Redman, 23; Lt.-Col. Clarke, R.E., 26.  
 — at low-water basins, Birkenhead. W. J. Doherty, li. 149.  
 — new Houses of Parliament. Cost. G. S. Dalrymple, i. (1840), 19.  
 — Victoria dock, Hull. W. J. Doherty, li. 150.  
 — Thames embankment. Quantities and cost. T. D. Ridley, xxxi. 11, 16, 25.  
 — Victoria embankment, Thames. E. Bazalgette, liv. 18, 19.  
 — Westminster bridge, old. Quantities. Lieut. F. Pollock, i. (1839), 66.

**QUANTITIES AND COSTS—DAMS:—**

- Dam for storage reservoir. Cost. J. J. R. Croes, xl. 312.  
 — Geelong waterworks. Cost. G. Gordon, xlv. 241.  
 — across the Gileppe valley. Cost. xlviii. 314.  
 Lake dam at Rapperswil, Zurich, lv. 377.  
 Vehar reservoir, Bombay waterworks. Quantities. H. Conybeare, xvii. 560.

**QUANTITIES AND COSTS—DOCKS AND QUAYS:—**

- Avonmouth dock. J. B. Mackenzie, lv. 18; A. Giles, 54; C. E. Daniel, 64.  
 Belfast. Graving dock and basin at Queen's quay. W. J. Doherty, lv. 101.  
 Cartagena. Floating dock. Weights and cost. G. B. Rennie, xxxi. 308, 313.  
 Docks, graving. Comparative costs. J. B. Redman, xxv. 331; J. Murray, 332;—J. B. Redman, xxxiii. 368, 369.  
 Greenock. Dock and quay walls, Albert harbour. Quantities and cost. D. Miller, xxii. 427, 433, 439.  
 Grimsby (Great) docks. Quantities and cost. E. H. Clark, xxiv. 40, 42, 44, 46, 49, 52, 54.  
 Hull. Albert dock. Quantities and cost. J. C. Hawkshaw, xli. 113, 116.  
 Liverpool. Dock walls. Cost. R. Rawlinson, xvii. 552.  
 London. Victoria docks. Cost. G. P. Bidder, xviii. 487, 488.  
 — South dock, West India docks. Cost. L. F. Vernon-Harcourt, xxxiv. 165, 166, 176.  
 Malta. Somerset dock. Cost of stone, scapped. C. Andrews, xxxiii. 353, 354, 366.

**Quantities and costs—Docks and quays—continued.**

- Marseilles dock and warehouses. Quantities and costs. T. Hawthorn, xxiv. 146, 148 to 159; J. B. Redman, 179.
- Pensacola. Floating dock. Cost. E. Clark, xxv. 297.
- Portsmouth. Graving dock. Quantities. E. Clark, xxv. 295.
- Sevastopol. Iron dock-gates. Quantities. W. Shears, vi. 52; G. Rennie, 54.
- Silloth. Dock, &c. Cost. J. Abernethy, xxi. 328, 343.
- Southampton docks. Quantities and costs. A. Giles, xvii. 541, 542, 544, 545, 550.
- Sunderland docks. Cost. J. Murray, xv. 406, 443.
- Swansea docks. Cost. J. Abernethy, xxi. 312, 314.
- Thames graving dock. Hydraulic lift. Quantities and cost. E. Clark, xxv. 302, 303, 312, 351; G. P. Bidder, 342.
- Tyne docks. Quantities and cost. T. E. Harrison, xviii. 491.
- Whitehaven dock. W. J. Doherty, lv. 102.
- Quay wall and cofferdam, Dublin. W. J. Doherty, li. 146; B. B. Stoney, 159.
- North quay wall, Dublin. B. B. Stoney, li. 160.
- Galatz. Cost. M. Jallut, xlix. 206.
- Greenore. Cost. J. Barton, xlv. 141.
- river wall, West London Extension railway. W. Lawford, liv. 51.

**QUANTITIES AND COSTS—DRAINAGE, IRRIGATION, AND SEWERAGE:—**

- Drainage of Bedford level. Cost. Sir J. Rennie, xix. 93, 94, 95.
- Ireland, drainages in. Cost. R. B. Grantham, xix. 64.
- Lake Fucino, drainage works for. A. Brisse and L. de Rotrou, li. 371.
- London. Main drainage. Quantities and cost. J. W. Bazalgette, xxiv. 313, 314; J. Grant, 344; J. Aird, Jun., 346.
- Muston drainage. Cost. Sir G. Cayley, iv. 210.
- Paris. Main drainage. F. Target, liii. 201.
- Richmond, drainage of. Cost. G. Donaldson, xi. 409, 410.
- Wareham, drainage of marsh land. Cost. R. B. Grantham, xix. 59.
- Irrigation works in the Haute-Garonne. Cost. M. Tranié, xlii. 277.
- Marchfeld, irrigation of the, l. 234.
- Paris sewage irrigation works. F. Target, liii. 211; table, 214.
- Rhone irrigation canal. Cost. F. Vidalin, xlviii. 318.
- Spain. Irrigation works, Alicante. Cost. M. Aymard, xlv. 311.
- Sewerage works. Berlin. Cost. M. Mille, xlv. 317.
- Brighton. Cost. J. G. Gamble, xliii. 202.
- Bristol. Cost. J. Green, vii. 84.
- Canterbury. Cost. J. Pilbrow, xli. 187, 188.
- Dantzic. Quantities and cost. Hr. v. Winter, xxxix. 379.
- Dundee. Quantities and cost. J. Fulton, xxii. 265, 272.
- Monmouthshire. Quantities and cost. A. Williams, xxii. 277, 278, 281, 282.
- Paris. Quantities and cost. H. B. Hederstedt, xxiv. 258–264, 277, 278.
- Tottenham. Cost. J. Pilbrow, xli. 181, 182, 187–190.

**QUANTITIES AND COSTS—HARBOURS, GROYNES, AND LIGHTHOUSES:—**

- Harbour, Alderney. Quantities. L. F. Vernon-Harcourt, xxxvii. tables, 78, 79, 98.

**Quantities and costs—Harbours, Groynes, and Lighthouses—continued.**

- Harbour Buffalo. Cost. Sir C. A. Hartley, xl. 225, 227, 228.  
 — Chicago. Cost. Sir C. A. Hartley, xl. 222, 239.  
 — Holyhead new harbour. Quantities and cost: H. Hayter, xlv. 105, 106, 108, 110–112, 113, 126; A. Giles, 117; W. Parkes, 128.  
 Groynes, Hornsea. R. Pickwell, li. 209.  
 — Spurn. R. Pickwell, li. 207.  
 — Sunderland docks. Cost. J. Murray, xv. 426.  
 — Withernsea. R. Pickwell, li. 208.  
 Lighthouse, Bermudas. Cost. P. Paterson, ix. 185; A. Gordon, 186.  
 — Great Basses, Ceylon. Quantities and cost. W. Douglass, xxxviii. 61; M. Beazeley, 62; J. N. Douglass, 65.  
 — Dhu Heartach. Cost. D. A. Stevenson, xlv. 12, 18.  
 — Japan lights. Cost. R. H. Brunton, xlvii. 23, 25.  
 — Menai. Cost. D. P. Hewett, ii. (1842), 123.  
 — Red Sea. Cost. W. Parkes, xxiii. 23, 25, 42.  
 — Roman Rock. Cost. J. F. Bourne, xxviii. 51.  
 — Souter Point. J. N. Douglass, lvii. 87.  
 — removal of, Sunderland. Cost. J. Murray, iii. 354.  
 — Wolf Rock, Bishop Rock, and other lighthouses. Quantities and costs. J. N. Douglass, xxx. 28; xlv. 163;—J. B. Redman, xxxviii. 64.  
 — gas-light in Halsbro'. J. N. Douglass, lvii. 101.  
 — electric lights in, at Dungeness, Souter, South Foreland, and Lizard. J. N. Douglass, lvii. 81, 87, 90, 95; tables, 96, 105, 106, 107; Prof. Tyndall, 111.  
 — Price of electric light apparatus. L. Sautter, Lemonnier and Co., lvii. 132.  
 — Holmes' electric light, South Foreland lighthouse. J. N. Douglass, lvii. 90.  
 — Comparative cost for lighting by oil, coal gas, and electricity. J. N. Douglass, lvii. 102; tables, 109, 110; W. H. Preece, 153; Dr. C. W. Siemens, 156.

**QUANTITIES AND COSTS—PIERS:—**

- Birkenhead piers and landing stage. Cost. C. G. Smith, l. 171.  
 Breton system of construction. Cost. Sir J. Rennie, xviii. 132.  
 Clevedon iron pier. Quantities and cost. J. W. Grover, xxxii. 135, 164.  
 Dover pier. Cost. G. P. Bidder, xviii. 124; J. Murray, xxiv. 175.  
 Gravesend cast-iron Terrace pier. Quantities and cost. J. B. Redman, iv. 227, 245, 246.  
 Holland, piers in. Cost. T. C. Watson, xli. 168.  
 Huerva pier of the Rio Tinto railway. T. Gibson, liii. 142.  
 Liverpool, piers and landing stages, near. Costs. H. Hooper, xxviii. 223, 225.  
 Saltash bridge. Pier, centre, of. Quantities. R. P. Brereton, xxi. 276.  
 Southend pier. Pier-head of old. Quantities. J. Paton, ix. 38.  
 Southport pier. Quantities and cost. H. Hooper, xx. 295, 297.  
 Sulina mouth of the Danube piers. Quantities and cost. C. A. Hartley, xxi. 289;—xxxvi. 207; tables, 221, 222.

**QUANTITIES AND COSTS—RIVER WORKS:—**

- Brenta and the Bacchiglione, regulation of the. G. Ponti, lv. 363.

Quantities and costs—River works—*continued*.

- Naburn lock, river Ouse wasteboard. Cost. H. Renton, i. (1840), 27.  
 Rhine, engineering of the. Quantities and costs. G. B. W. Jackson, vii. 221-234.  
 Rhone, regulation of the. Hr. Baurath Honsell, lv. 361.  
 Severn, works on the. Cost. E. L. Williams, xix. 533.  
 Tees (River), navigation. Cost. Jos. Taylor, xxiv. 64, 65, 67; J. Murray, 75, 82.

## QUANTITIES AND COSTS—ROOFS:—

- Iron roofs. Cost. J. Fowler, xiv. 264, 271; G. W. Hemans, 265; Sir C. Fox, 265; J. Henderson, 268, 271; Capt. W. S. Moorsom, 272.  
 Roofs of railway stations. Quantities and costs. W. H. Barlow, xxx. 86, 89; J. W. Barry, 96.  
 Birmingham. Iron roof, New Street railway station. Quantities and cost. xiv. 261, 263; C. May, 266; J. Fowler, 268.  
 ——— Roof. Cost. J. H. Porter, xxvii. 435; J. W. Grover, 437.  
 Cannon Street railway station. Roof. Cost. J. W. Barry, xxvii. 423.  
 Charing Cross railway station. Roof. Cost. J. W. Barry, xxvii. 424.  
 Eastern Counties railway. Roof of iron shed, London terminus. W. Evill, iii. 289.  
 Liverpool. Iron roof, Lime Street station. Cost. R. Turner, ix. 208, 212; J. Locke, 214.  
 St. Pancras station, roof at. Quantities and cost. W. H. Barlow, xxx. 83-89; J. W. Grover, 100.  
 Victoria railway station, roof. Cost. R. J. Hood, xxvii. 434.

## QUANTITIES AND COSTS—TUNNELS:—

- Tunnels, various, in chalk, sand, and clay. Cost. J. G. Fraser, xxii. 381, 383.  
 ——— in rock. Cost. W. Eckersley, xxiii. 299. E. Hopkins, 307.  
 Anakie tunnel, Geelong water supply. E. Dobson, lvi. 123.  
 Buckhorn Weston, Salisbury and Yeovil railway tunnel. Quantities and cost. J. G. Fraser, xxii. 378, 379, 380.  
 Cochem tunnel. Cost. F. Rziha, l. 242.  
 Elm-Gemünden and Bebra-Friedland railways, tunnels. Cost. F. Rziha, l. 242, 243.  
 Henares canal, Spain, tunnel. Cost. G. Higgin, xxvii. 495.  
 Lindal tunnel. Cost. F. C. Stileman, xix. 236.  
 Lydgate, London and North Western railway, tunnel. Quantities and cost. J. G. Fraser, xxii. 372, 375, 376.  
 Marseilles canal tunnels. Cost. W. Pole, xiv. 203; R. W. Mylne, 211.  
 Marseilles to Prado station railway tunnel. P. Ferrié, lvii. 334.  
 Mont Cenis tunnel. Quantities and cost. T. Sopwith, Jun., xxiii. 264, 269-272, 274, 288, 311, 313; W. Eckersley, 299.—T. Sopwith, Jun., xxxvi. 7, 31.  
 Netherton tunnel. Quantities and costs. J. R. Walker, xix. 266, 267, 281.  
 Sestao tunnel, Bilbao Iron Ore Company's railway. F. C. Barron, li. 253.  
 St. Gothard tunnel. Quantities and cost. D. K. Clark, xlii. 231, 244.  
 Sydenham tunnel. Quantities and cost. A. E. Baldwin, xlix. 253.

## QUANTITIES AND COSTS—VIADUCTS:—

- Boyne, lattice viaduct across the. Quantities. J. Barton, xiv. 458.
- Bristol waterworks. Wrought-iron aqueducts. Cost. J. Simpson, xiv. 222.
- Commeny-Ganat railway. Iron viaducts. Cost. xi. 269.
- Craigellachie, Morayshire railway. Iron viaduct. Quantities and cost. W. H. Mills, xxv. 235, 236.
- Grand River, Mauritius railways. Iron viaduct. Quantities and cost. W. Ridley, xxv. 240, 244, 247; J. A. Longridge, 248.
- Lausanne-Fribourg railway. Iron viaduct. Quantities. G. H. Phipps, xxv. 252.
- Leven and the Kent, Ulverstone and Lancaster railway, iron viaducts across the. Quantities and costs. J. Brunlees, xvii. 446.
- Loch Ken, Portpatrick railway. Iron viaduct. Quantities and cost. E. L. I. Blyth, xxi. 262, 263.
- Manchester. [Cast iron viaduct (railway). Quantities and cost. A. S. Jee, xi. 226.
- Mhow-Ke-Mullee viaduct, Great Indian Peninsula railway. Quantities and cost. A. R. Terry, xxix. 376, 380.
- Salford. Cast iron viaduct (railway). Cost. J. Hawkshaw, xi. 242.
- Stone viaducts, railway. Cost. I. K. Brunel, ix. 292; C. B. Vignoles, 293. P. Bruff, 294.
- Ariccia, stone viaduct of. Quantities and cost. Mr. Pentland, xiv. 235.
- Bahrün, Scinde railway, stone viaduct across the. Quantities and cost. J. Brunton, xxii. 471, 475-479.
- Calder, on the Wishaw and Coltness railway. Stone and timber viaduct. Cost. J. Macneill, ii. (1842), 190.
- Chapple, Eastern Counties railway. Stone viaduct. Quantities and cost. P. Bruff, ix. 291, 292; I. K. Brunel, 292.
- Dee, stone viaduct over the. Quantities and cost. A. J. Robertson, ix. 293.
- Durham (South) railway. Rubble stone viaducts. Cost. T. Bouch, xxii. 53.
- Hownes Gill, Stockton and Darlington railway. Stone viaduct. Quantities and cost. W. Cudworth, xxii. 48, 49, 51; G. P. Bidder, 52; F. W. Shields, 54.
- Lockwood. Huddersfield and Sheffield railway. [Rubble stone viaduct. J. Hawkshaw, x. 297, 298, 300.
- Luech, Nîmes railway. Railway stone viaduct, valley of the. Cost. M. Chabassu, xlv. 247.
- Scotland, rubble stone viaducts in. T. Bouch, xxii. 53.
- Timber railway viaducts. Cost. L. E. Fletcher, xiv. 504.
- Dinting Vale, Sheffield and Manchester railway. A. S. Jee, v. 218.
- Landore, South Wales railway. Quantities and cost. L. E. Fletcher, xiv. 501, 503.
- Newcastle and North Shields railway. Costs. B. Green, v. 226, 227, 229, 230.
- Timber railway viaduct, Norway. Cost. G. P. Bidder, xiv. 209.

## QUANTITIES AND COSTS—WATERWORKS, RESERVOIRS, AND WELLS:—

- Aix water supply. Cost. M. Oppermann, xvi. 301.
- Baltimore. Cost. i. 227.
- Bremen. Cost. E. Bötcher and H. Ohnesorge, xlvii. 349.
- Chicago. Cost. Sir C. A. Hartley, xl. 214, 217.



**Quantities and costs. Waterworks, reservoirs, and wells—continued.**

- Croton. Cost. Sir C. A. Hartley, xl. 207.  
 Dresden. Quantities and cost. H. Salbach, xxxix. 384–386.  
 Dublin. Cost. P. Neville, xxxviii. 32; table, 43; C. H. Beloe, 44;  
 T. Simpson, 47; R. Hassard, 49.  
 Esslingen. Cost. l. 228.  
 Frankfort. Cost. F. Schmetner, xlvii. 350.  
 Geelong water supply, Victoria, Australia. E. Dobson, lvi. 95, 123, 128 to 133.  
 Melbourne. Cost. M. B. Jackson, xviii. 378.  
 Nagpur. Quantities and cost. A. R. Binnie, xxxix. 5–11.  
 Paisley water supply. Cost. A. Leslie, xxxi. 46.  
 St. Etienne. Cost. M. de Montgolfier, xli. 245.  
 Sandhurst water supply. E. Dobson, lvi. 150.  
 Trafalgar Square. Cost. C. E. Amos, xix. 27, 28.  
 Vienna. Quantities and cost. C. Mihatsch, xlix. 346.

- Reservoirs. Quantities. A. Leslie, xxxi. 47.  
 — rain. Quantities and costs. J. F. Bateman, vii. 257, 264, 274.  
 — Bann reservoir. Cost. J. F. Bateman, i. (1841), 170.  
 — Madrid storage reservoir. Cost. E. Boix, xli. 242.  
 — Rajpootana, reservoirs in. Cost. Col. Dixon, xvii. 569.  
 Weir, Henares canal, Spain. Quantities and cost. G. Higgin, xxvii. 493.  
 Well, Hampstead Road. Cost. R. W. Mylne, i. (1839), 62.  
 — artesian bore, Harwich. Cost. P. Bruff, xix. 41.  
 — at Truman, Hanbury, and Buxton's brewery. Cost. R. Davison,  
 ii. (1842), 194.

**QUANTITIES AND COSTS—VARIOUS:—**

- Aqueduct over the valley of Alcantra. Cost. S. Clegg, Jun., i. (1841), 140.  
 — stone bridge, Roquefavour. Quantities and cost. G. Rennie, xiv. 198,  
 199, 200; W. Pole, 202; R. W. Mylne, 213; M. Mont Richer, 230.  
 Blast furnaces, Newport, Middlesbrough. Quantities and cost. B. Samuelson,  
 xxxii. 341 to 348, 368.  
 Dredging river Clyde. Quantities and cost. J. Deas, xxxvi. 146–149;  
 tables, 156–169, 195, 196; J. F. Bateman, 173; J. B. Redman, 178.  
 — Sextao Harbour. F. C. Barron, li. 255.  
 Embankment for reclamation of land, Lough Swilly. Cost. i. (1840), 43.  
 — Rose's Bay, Londonderry and Coleraine railway. Quantities. J.  
 Brunlees, xiv. 250.  
 — of the river Durance, Vacluse. Cost. M. Hardy, xlv. 298.  
 — Victoria, Albert, and Chelsea. E. Bazalgette, liv. 20, 22, 24, 54;  
 W. J. Doherty, 49.  
 Excavator, steam navvy, on the West Lancashire railway. C. D. Fox,  
 lii. 252.  
 Ferry. Steam railway ferries. Cost. W. Hall, xx. 382, 383.  
 Railway-ferry pontoon, Lake of Zurich. Cost. xlv. 286.  
 Fireproof flooring. Cost. J. Barrett, viii. 163.  
 — floors. Quantities and costs. J. Barrett, xii. 263; H. A. Hunt, 271.  
 Foundation for engine turntable, Bremen, liii. 340.  
 Gasworks. Portalade. Cost. J. B. Paddon, xxxvii. 323, 324, 330.  
 — Berlin gasholder. W. Schwedler, xlviii. 327, 328.

Quantities and costs—Sundry—*continued*.

- Guns, Woolwich. J. A. Longridge, lvi. 193, 200. Armstrong guns, 193.  
 Jetties in Holland. Cost. T. O. Watson, xli. 170.  
 Land reclamation, Denmark. Cost. J. Paton, xxi. 445.  
 — of the Maxqueller. Cost. H. Eckermann, xlii. 281.  
 — Lincolnshire: Cost of embanking with fascine work. W. H. Wheeler, xlv. 72, 79; W. Shelford, 74; Sir J. Cooke, 77.  
 Locomotives. American *versus* English. R. M. Brereton, liii. 92.  
 Mill, flax, Leeds. J. Combe, ii. (1842), 142.  
 Mortar, hydraulic. Cost. G. Robertson, xvii. 432.  
 Pavement, stone, Manchester. Quantities and cost. C. E. Cawley, xiii. 230.—J. G. Lynde, lviii. 66; E. B. Ellice-Clark, 91.  
 — London. Cost. W. Haywood, xiii. 234.—E. B. Ellice-Clark, lviii. 91; G. F. Deacon, 93.  
 — Birmingham. W. Taylor, xiii. 239.  
 Powder ram, Riedinger's. H. Kuhn, xliii. 331.  
 Public works, Canterbury, New Zealand. Cost. E. Dobson, xxix. 105.  
 Pumping machinery, River Witham drainage. Cost. E. Welsh, xxxiv. 180.  
 Road, Mangaratiba, Brazil. Cost. E. B. Webb, xix. 251.  
 Scaffolding for Nelson column, Trafalgar Square. Cost. T. Grissell, iii. 205.  
 Ships, iron-plated. Cost. J. d'A. Samuda, xxi. 191; G. Turner, 201; Admiral Sir G. Sartorius, 206; G. P. Bidder, 252.  
 Siphon, wrought-iron, across the valley of S. Paul (Var.). Cost. M. Briche, xlix. 347.  
 Slips, at Kiel. Cost. H. Franzius, xlv. 298.  
 Steel. Bessemer steel works, Sweden. Cost. C. P. Sandberg, xxxix. 208.  
 Stoves, hot-blast. Cost. E. A. Cowper, xxx. 314.  
 Submarine cables, Indian telegraph. Weight. Sir C. T. Bright, xxv. 8.  
 Sugar factory, Aba-el-Wakf. Cost. W. Anderson, xxxv. 69.  
 Water-pressure engines at Clausthal. Hr. Fickler, liv. 344.  
 Wire tramway, Hanover gasworks. Cost, xlvii. 341.  
 — Indian tramway. C. D. Fox, xxvi. 51.  
 See *Locomotives*, first cost; *Permanent way*, quantities; *Railways*, first cost.

## QUARRIES:—

- Quartz quarries, Holyhead mountain. H. Hayter, xlv. 97.  
 Stone quarries of Laufen, Switzerland; differential tramway, lvii. 346.  
 Supporting of underground quarries beneath the Montrouge reservoirs. M. Keller, l. 199.  
 See *Blasting*.

## QUAYS:—

- Construction of pile quays. M. Scott, xviii. 511.  
 — of quay walls without cofferdams. D. Miller, xxii. 423.  
 Quay walls built on cylinders of iron: T. E. Harrison, xxxi. 22. On cylinders of brick: C. B. Vignoles, 31.  
 — at the port of Belfast. T. R. Salmond, lv. 29.  
 — Bilbao: Construction. E. Wood, li. 154.  
 — of large blocks of concrete, harbour of Dublin. J. F. Bateman, xxv. 142;  
 — B. B. Stoney, xxxvii. 332;—W. J. Doherty, li. 137.  
 — in non-hydraulic lime mortar, Dublin. W. J. Doherty, li. 139.

**Quays—continued.**

- Galatz Quay, new, M. Jallut, l. 205.  
 — and foundations of brick cylinders (without cofferdams), Plantation quay, Glasgow. J. F. Bateman, xxxiv. 28;—J. Milroy, xxxv., 187; J. F. Bateman, 201; J. B. Redman, 207.  
 — for the marine railway station, Greenore: J. Barton, xlv. 135.  
 Grimsby (Great), west wharf, docks. E. H. Clark, xxiv. 40.  
 Houses of Parliament river wall. G. S. Dalrymple, i. (1840), 19.  
 Marseilles docks. Construction of quay walls, with blocks of concrete. T. Hawthorn, xxiv. 148.  
 Rhine, quays at the mouth of the. Sir C. A. Hartley, lv. 105.  
 Rotterdam, quay walls at, xlvii. 344.  
 Whitehaven, West quay. J. E. Williams, lv. 43.

**RADIOMETER**, Crookes's, xlv. 164, 167, 169, 173.

**RAILS.** See *Permanent way*.

**RAILWAYS:—**

- Historical notice. Sir J. Rennie, v. 68; J. M. Rendel, xi. 150; C. B. Vignoles, xxix. 306.  
 Canals *versus* railways. R. C. Despard, xvii. 393, 408; N. Beardmore, 400; G. W. Hemans, 406; R. Stephenson, 406.  
 Mineral lines, construction of. F. Gamillschegg, lii. 319.  
 Mountain railways. C. Maader, xli. 274.  
 Projection of railways on maps. J. Macneill, i. (1837), 36, 37.  
 America. "On railways in America." S. W. Roberts, i. (1839), 43.  
 — "The Pennsylvania railroad; with remarks on American railway construction and management." C. D. Fox and F. Fox, xxxix. 62. Discussion; see *Railway (seq.)*.  
 — development and extent. C. D. Fox and F. Fox, xxxix. 74. Sir C. A. Hartley, xl. 163.  
 — "The Pennsylvania railroad; with remarks on American railway construction and management." C. D. Fox and F. Fox, xxxix. 62. (4 plates.)  
 — Discussion: C. D. Fox, xxxix. 89, 116; F. W. Webb, 91, 97; T. W. Worsdell, 92; W. H. Barlow, 95; F. J. Bramwell, 96; M. Longridge, 97; Dr. C. W. Siemens, 100; W. R. Galbraith, 101; R. Price Williams, 104; Dr. W. Pole, 105; W. Stanley, 108; G. H. Phipps, 109; W. Shelford, 109; W. B. Lewis, 110; J. Fernie, 110; G. Berkley, 113; E. A. Cowper, 115.  
 — "Notes on railway appliances at the Philadelphia Exhibition of 1876." Capt. D. Galton, C.B. liii. 28. (1 plate).—Discussion: A. Siemens, liii. 68; C. D. Fox, 68; Jos. Taylor, 71; J. A. Longridge, 71, 87; G. Berkley, 72; E. A. Cowper, 73; W. Atkinson, 73; W. R. Browne, 74; I. L. Bell, 75; T. Ashbury, 79; G. Findlay, 81; F. J. Bramwell, 83; T. A. Rochussen, 85; T. G. Clayton, 85; T. R. Crampton, 86; J. Tomlinson, jun., 86; Capt. Galton, 87; J. F. Bateman, 89; R. M. Brereton, 89; A. MacDougall, 93; R. E. Middleton, 95; C. P. Sandberg, 96.  
 Amsterdam and Rotterdam. "Account of the railway from Amsterdam to Rotterdam, and of the principal works upon it." The Chev. F. W. Conrad, translated from the French by C. Manby, iii. 173.  
 Andes. Railway across the Andes from Lima to Oroya, lv. 387.

*Railways—continued.*

**Australia (South).** "On the best methods of railway construction for the development of new countries, as illustrated by the railway systems of South Australia." R. C. Patterson, lvi. 24. 3 (plates.)—Discussion: J. F. L. Jetter, lvi. 46; G. Berkley, 48; C. D. Fox, 51; C. H. Gregory, 55; J. L. Haddan, 56; E. W. Young, 62; R. Price Williams, 65; W. Forster, 69; E. Woods, 71; C. Graham Smith, 73; A. C. Pain, 74; G. B. Bruce, 75; J. A. Longridge, 76; W. H. Barlow, 78; W. Atkinson, 78; A. C. Fitz-Gibbon, 79; J. Lawson, 82; W. B. Lewis, 85; T. S. Tancred, 88.

— railways. R. C. Patterson, lvi. 26; table 44.

**Austria.** On the working of the South Austrian railways between 1872 and 1875: A. Gottschalk, xlix. 315. In 1876 and 1877: A. Gottschalk, liv. 316.

**Battersea.** New railways at Battersea. C. D. Fox, xxvii. 75.

**Bilbao,** mineral lines of railway in the neighbourhood of, xlii. 297.

**Birmingham extension.** "An account of the works on the Birmingham extension of the Birmingham and Oxford junction railway." C. B. Lane, xi. 69.

**Brazil.** "On the means of communication in the empire of Brazil; chiefly in reference to the works of the Mangaratiba Serra road, and to those of the Mauá, the first Brazilian railway." E. W. Webb, xix. 240.

— "On the decay of materials in tropical climates, and the methods employed for arresting and preventing it." G. O. Mann, xxiv. 1.

**Breslau-Schweidnitz-Freiburg railway.** H. Wiebe, xlv. 248.

**Calabrian.** Works undertaken for the consolidation of the bed of the Calabrian railway, near Torre Vecchia. S. Bilia, xlviii. 277.

**Calcutta and South Eastern railway.** J. A. Longridge, xix. 620.

**Charing Cross.** "The City terminus extension of the Charing Cross railway." J. W. Barry, xxvii. 410.—Discussion; J. W. Barry, xxvii. 431, 440; W. H. Barlow, 431; J. Hawkshaw, 432, 439; R. J. Hood, 433, 437; J. A. Longridge, 434; R. P. Brereton, 434; J. H. Porter, 435; J. W. Grover, 437; E. Ryde, 438; J. W. Bazalgette, 438; T. E. Harrison, 439; G. H. Phipps, 439; C. H. Gregory, 441.

**Chiasso-Camerlata railway,** xl. 278.

**Chili.** Length, cost, and rolling stock: W. Lloyd, xxiii. 396. Characteristics of construction, 397; A. Giles, 402; C. B. Vignoles, 402; E. Woods, 402.

**Colonial railways,** principles of. J. L. Haddan, lvi. 59.

**Europe.** Length of railways in Europe. Dr. G. Stürmer, xxxix. 356.

**German.** "Technical Report of the German railway union." (S.) W. R. Browne, lvii. 208.

**Holland.** The Dutch railways. A. Jacqmin, liii. 329.

**Hungarian railways.** J. Lawson, lvi. 83.

— (West). Construction of West Hungarian railway from Raab to Grätz, xlii. 294.

**India.** "On Indian railways; with a description of the Great Indian Peninsula railway." J. J. Berkley, xix. 586. (1 plate.)—Discussion: G. Berkley, xix. 611; G. B. Bruce, 617; J. A. Longridge, 620; J. Hawkshaw, 621; G. P. Bidder, 623.

— Historical notice: J. Brunton, xxii. 451. East Indian railway: G. Berkley, xix. 611. Madras railway: G. Berkley, xix. 613; G. B. Bruce, 617; J. Hawkshaw, 621. Scinde Railway: G. Berkley, xix. 614.

**Railways—continued.**

India. Laying the way below the flood-water line, Scinde railway: J. Brunton, xxii. 468, 496; W. P. Andrew, 482; G. B. Bruce, 485; G. P. Bidder, 489.  
 — Indian (Great) Peninsula, description of. J. J. Berkley, xix. 586; G. Berkley, 612.

Italy. Italian railways in 1875. Dr. Stürmer, xlviii. 282.

— Construction of railways by the Italian Government, xlix. 305.  
 — Construction and working of Italian railways in 1876, liii. 331.  
 — On the construction and working of railways in Italy. G. Parravicini, lvii. 338.

Japan. "Railway work in Japan." W. F. Potter, lvi. 2. (1 plate).—  
 Discussion: H. Hayter, lvi. 15, 21; W. W. Cargill, 17. R. C. Rapier, 20, 21; W. Atkinson, 21; W. F. Potter, 21.

— Osaka-Kioto railway. W. F. Potter, lvi. 4.  
 — Yedo-Yokohama railway. W. F. Potter, lvi. 2.  
 — Kobe-Osaka railway. W. F. Potter, lvi. 3.

Lausanne-Ouchy railway, liii. 333.

Liège and Verviers. "An account of the railroad constructing between Liège and Verviers, Belgium." Lieut. Oldfield, ii. (1842), 141.

— Railway joining the stations of Guillemins and Vivegnis at Liège. M. Debeil, liv. 313.

Lisbon and Santarem. "Description of the line and works of the railway from Lisbon to Santarem." J. S. Valentine, xviii. 1.—Discussion: G. L. Molesworth, xviii. 18; T. Flanagan, 18; J. S. Russell, 19; J. Hawkshaw, 20; J. S. Valentine, 21; G. P. Bidder, 22.

"Manchester and Leeds railway section." F. Whishaw, i. (1839), 43.

Mauritius. "The Mauritius railways—Midland line." J. R. Mosse, xxviii. 232. (1 plate).—Discussion: G. W. Hemans, xxviii. 256; J. A. Longridge, 256, 259; F. J. Bramwell, 258; J. Mitchell, 259; J. B. Huntington, 259; W. B. Adams, 260; T. E. Harrison, 264; J. Hawkshaw, 266, 283; W. Atkinson, 267; J. W. Barry, 269; W. H. Barlow, 271; G. Berkley, 271; R. P. Brereton, 274; Colonel Morrison, 275; J. B. Fell, 279; G. P. Bidder, 280; C. H. Gregory, 286.

Mont Cenis railway. J. B. Fell, xxiii. 315; C. B. Vignoles, xxix. 301.

New Zealand. Railways surveyed and completed, Canterbury. E. Dobson, xxix. 116.

— railways. T. S. Tancred, lvi. 88.

Pola. The marine railways at the Austrian naval station at Pola, on the Adriatic. H. E. Towle, xxxii. 65.

Prussian railways in 1875, xlviii. 280.

Queensland railway. J. F. L. Jetter, lvi. 46.

Recife and São Francisco railway. W. M. Peniston, xxii. 393, 406.

"Rigi railway." W. Pole, F.R.S., xxxvi. 103. (1 plate).—Discussion: Dr. Pole, xxxvi. 118, 122; J. Hawkshaw, 118; F. J. Bramwell, 119; G. Berkley, 121; J. I. Thorneycroft, 121; J. T. Harrison, 121; J. Brunlees, 121.

Roumelian railways, xl. 279.

St. Gothard railway, xl. 277. Construction and working of the St. Gothard railway: G. Pachó, xlviii. 274.

Santiago and Valparaíso. "Description of the Santiago and Valparaíso

*Railways—continued.*

- railway, Chili, South America; with remarks on resistances from curves on railways, and upon coal-burning locomotives." W. Lloyd, xxiii. 376.  
 —Discussion: G. Paddison, xxiii. 399, 401; J. Fowler, 399; E. Woods, 399, 401, 402; G. H. Phipps, 401; C. B. Vignoles, 401, 402; A. Giles, 402; Z. Colburn, 403, 404; G. P. Bidder, 404.
- São-Paulo. "Description of the line and works of the São-Paulo railway, in the empire of Brazil." D. M. Fox, xxx. 29. (3 plates.)—Discussion: J. Brunlees, xxx. 57, 76; J. J. Aubertin, 58; C. B. Lane, 62; W. G. Hemans, 64; J. M. Heppel, 66; W. Lloyd, 66; Dr. W. Pole, 67; F. J. Bramwell, 67; J. Hawkshaw, 68; G. Broadrick, 69; C. Neate, 69; V. G. Bell, 69; J. Bayliss, 71; J. A. Longridge, 73; J. Cooda, 74; J. N. Douglass, 76.
- Scinde. "Description of the line and works of the Scinde railway." J. Brunton, xxii. 451. (6 plates.)—Discussion: W. P. Andrew, xxii. 480; G. P. Bruce, 484; G. Berkley, 486; W. A. Brooks, 487, 489; W. Parkes, 488; G. P. Bidder, 489; J. Brunton, 494.
- Shanghai-Woosung railway. R. C. Rapier, lvi. 20.
- Sicily. Railway construction in Sicily, xvii. 328.
- Spain. The north-western railways of Spain, lii. 313.
- Sumatra. On surveying for railways in Sumatra. J. L. Cluysenaer, li. 306.
- Swedish State railways. P. W. Almgust, li. 310.
- Switzerland. The railways of Western Switzerland. J. Meyer, lvi. 302.
- Turkey. Railways in Asiatic Turkey. F. Rolin, liv. 318.
- Uetli mountain railway, near Zurich. Prof. A. Fliegner, xl. 275;—J. Moschell, xlix. 307.
- Victoria, railways in. W. B. Lewis, lvi. 85.
- Vitré. Cost of construction and of working of the Vitré, Fougères and Moidrey railway. A. C. Dornès, lvii. 335.
- Winkeln-Appenzell railway, xli. 273.

**RAILWAYS—ACCIDENTS:—**

- Accidents due to bad condition of permanent way. J. Brunlees, xxi. 347; Col. Yolland, 399; G. B. Bruce, 407.
- of rolling stock. J. Brunlees, xxi. 351; Capt. D. Galton, 367; Col. Yolland, 396, 398.
- due to defective management and negligence on railways. J. Brunlees, xxi. 355, 419; Capt. D. Galton, 368, 370, 374; Sir J. Paxton, 387; Col. Yolland, 397, 400; Capt. Tyler, 410.
- Compensation for railway accidents. Compensation paid: Capt. D. Galton, R.E., xxi. 363, 376. Proposed system of compensation; G. P. Bidder, 395; T. Webster, 408; Capt. Tyler, 409; J. Hawkshaw, 421.
- Legislation and litigation on railway accidents. Capt. D. Galton, R.E., xxi. 372, 417; G. P. Bidder, 390; Col. Yolland, 403; Capt. Tyler, 410; Earl of Shelburne, 412; J. Hawkshaw, 420.
- Prevention of accidents and regulation of compensation by association of railway companies. Capt. D. Galton, R.E., xxi. 381, 417; G. P. Bidder, 395; J. Hawkshaw, 421.
- Railway accidents. T. E. Harrison, xxxvii. 240.
- "— their cause and means of prevention; detailing particularly the various contrivances which are in use, and have been proposed." Capt. M. Huish,

**Railways—accidents—continued.**

xi. 484.—Discussion: see B. Poole's Paper on the economy of railways (p. 234).

"Railway accidents: their causes and means of prevention." J. Brunlees, xxi. 345.

"— showing the bearing which existing legislation has upon them."

Capt. D. Galton, xxi. 363.—Discussion on the two preceding Papers: Prof. Airy, xxi. 383, 411; Capt. Tyler, 383, 409; C. W. Siemens, 383; C. Babbage, 385; Sir J. Paxton, 387; S. Clarke, 389; G. P. Bidder, 389; Col. Yolland, 396, 413; J. Hawkshaw, 406, 420; C. H. Gregory, 406; G. B. Bruce, 407; H. Shaw, 408; T. Webster, 408; J. A. Ransome, 413; C. B. Lane, 414; Capt. Galton, 416; J. Brunlees, 418.

— in relation to the passenger traffic. Capt. D. Galton, R.E., xxi. 365.

— in France, statistics of. M. Sartiaux, lii. 333.

— Tables of, 1854-60. J. Brunlees, xxi. 345, 346, 418; Capt. D. Galton, R.E., 365, 366, 367.

**RAILWAYS, ATMOSPHERIC:—**

Historical notice. Jacob Samuda, iii. 259; W. Newton, 269. Medhurst's system, 259, 269; Vallance's system, 269; Pinkus's system, 270.

"Atmospheric railway." Jacob Samuda, iii. 256.—Discussion: J. Samuda, 269, 271, 272, 276, 282; W. Newton, 269; S. Clegg, 271; B. Gibbons, 272, 274; E. Cowper, 272; Mr. Bergin, 275; A. Slate, 277; J. Farey, 277, 283; F. Braithwaite, 282; S. C. Homersham, 282.

— for Alpine districts. W. Pole, xxvi. 344; G. W. Hemans, 346; A. Doull, 367; Capt. H. W. Tyler, 392.

— System for long tunnels. G. J. Morrison, xliii. 44.

— *versus* rope-traction; table. P. W. Barlow, iv. 142.

— "Comparative advantages of the atmospheric railway system." P. W. Barlow, iv. 114. (9 plates.)—Discussion: J. d'A. Samuda, iv. 143, 149; P. W. Barlow, 144, 145, 146; J. Pim, 144, 149; C. H. Gregory, 145; I. K. Brunel, 146, 150; W. Cubitt, 147, 149; J. S. Russell, 147, 149.

Dalkey atmospheric railway, table of experiments on the, compiled by G. P. Bidder, v. 380.

Devon (South) atmospheric railway, by I. K. Brunel. P. J. Margary, xxvi. 365; Sir C. Fox, 386.

Paris and St. Germain's atmospheric railway, by M. Flachet. C. R. Drysdale, xv. 361, 362, 363.

"Peculiar features of the atmospheric railway system." G. Berkley, iv. 251.

— Discussion: R. Stephenson, iv. 261, 269; G. P. Bidder, 264, 286; J. S. Russell, 264, 277, 285; J. d'A. Samuda, 266, 275, 288; C. B. Vignoles, 272, 278; G. Berkley, 272; P. W. Barlow, 274, 287; C. H. Gregory, 275; J. Locke, 278; C. May, 278, 285; W. Fairbairn, 279; F. Braithwaite, 279; N. Wood, 280, 286; J. Taylor, 280; G. Lowe, 281; T. Hawksley, 281; R. Nicholson, 286; J. Hawkshaw, 287; J. Walker, 289; B. Mallet, 290; J. M. Rendel, 290.

**RAILWAYS—AXLES:—**

"Account of a series of experiments on the comparative strength of solid and hollow axles." J. O. York, ii. (1843), 89; C. Geach, iii. 201.

Bessemer steel axles, resistance of. G. Berkley, xxv. 390.

"Causes of fracture of the axles of railway carriages." J. Glynn, iii. 202.

**Railways—axles—continued.**

- "Causes of the unexpected breakage of the journals of railway axles, and on the means of preventing such accidents by observing the law of continuity in their construction." W. J. M. Rankine, ii. (1843), 105: xiii. 467.
- "Description of an improved form of the journals of the axles for railways." Capt. E. R. Handcock, ii. (1843), 166.
- Experimental tests of Bessemer steel axles. G. Berkley, xxv. 390.
- Fracture of railway axles. C. Hood, ii. (1842), 180, 182.
- W. B. Browne, xlv. 89; W. A. Adams, 107.
- on German railways: xlvii. 50.
- Hollow axles, manufacture of. J. O. Yorke, ii. (1842), 182;—ii. (1843), 92.
- Insufficiency of the tests in use for steel axles. R. L. Haswell, xlv. 307.
- "Manufacture of malleable iron; with the results of experiments on the strength of railway axles." G. B. Thorneycroft, ix. 294.
- Proof tests for railway axles. J. O. Yorke, ii. (1842), 183.
- Radial or radiating axles and axle-boxes: Adams's system. J. Cross, xxiii. 408; W. B. Adams, 418, 438; C. H. Gregory, 428, 434; C. B. Vignoles, 430; G. H. Phipps, 431; G. W. Hemans, 432; G. Berkley, 434; J. M. Heppel, 436; J. Hawkshaw, 437; W. Adams, 438;—C. D. Fox, xxvi. 61; W. B. Adams, 75; J. Clark, 385;—W. B. Adams, xxxi. 363; C. D. Fox, 380; J. A. Longridge, 383; F. J. Bramwell, 388. J. Clark's system, xxxi. 396; J. Bruuleas, 402; E. Woods, 405.
- Radial wheels and axles, Queensland railways: Sir C. Fox, xxiv. 371.
- Norwegian railways. P. Bruff, xxiv. 371, 373.
- Relative values of blows and pressure in testing the transverse strength of railway axles. Prof. F. Kick, xlv. 305.
- Remarks on the strain to which axles are subjected when tested. W. Liehmann, xlv. 281.
- Self-lubricating hollow axle for mining wagons, &c. (Dessart's) J. Libert, lv. 398.
- Solid axles *versus* hollow axles. J. O. Yorke, ii. (1843), 107; J. Parkes, 107.

**RAILWAYS—AXLE-BOXES:—**

- Beuther's oil-boxes: W. Stanley, xlv. 145. Performance: T. R. Crampton, liii. 86; J. Tomlinson, jun., 86; J. A. Longridge, 87.
- Carr's oil axleboxes. C. D. Fox, xxvi. 62.
- Curtis's axleboxes, xviii. 444.
- Grease-boxes *versus* oil-boxes. W. B. Browne, xlv. 92; W. A. Adams, 107; C. D. Fox, 117; T. G. Clayton, 118; E. A. Cowper, 123; J. W. Barry, 126; G. Findlay, 128; J. W. Emmett, 132; J. A. Longridge, 135; W. Stanley, 145.
- Lubrication of railway axles (Straussloot oil-axlebox: performance), liii. 337.
- "New system of axleboxes not requiring lubrication, and without liability to heating." P. A. de Brussaut, xviii. 406.—Discussion: R. Sinclair, xviii. 414; J. James, 414; T. E. Harrison, 415; J. G. Appold, 415; F. Lawrence, 415; J. Fraser, 415; J. Locke, 416.
- Oil-tight axleboxes. Z. Colburn, xxviii. 369, 381; W. B. Adams, 388; T. E. Harrison, 400; P. R. Hodge, 403; E. A. Cowper, 406, 409; Sir C. Fox, 419; O. Younghusband, 433.
- Self-oiling axlebox. R. Mallet, vi. 496.



## RAILWAYS—BRAKES :—

- Historical notice. E. Guérin, xvii. 153; W. B. Adams, 165.
- Action of ordinary brakes on guards' vans. F. J. Bramwell, xix. 519; xxv. 455;—R. P. Brexton, xxviii. 275.
- Adams' sledge brake. W. B. Adams, xvii. 165, 167.
- Atmospheric counter-pressure brake, Rigi railway. W. Pole, xxxvi. 113, 122; J. Hawkshaw, 119; J. Brunlees, 122.
- Brake for the machinery for rope-traction, Blackwall railway. A. J. Robertson, v. 151; G. P. Bidder, 156, 158.
- Brakes on inclines. Oldham incline: Capt. J. M. Laws, x. 247. West Cornwall railway: Capt. W. S. Moorsom, x. 251. On inclines: J. B. Fell, xxvi. 328. Lickey incline: Capt. W. S. Moorsom, xviii. 67. Botallack copper mine, Cornwall: J. Coope, xxx. 74; J. N. Douglass, 76. Mountain-top incline, Virginia Central railroad; T. I. Isaac, xviii. 57. São Paulo railway: J. Brunlees, xxx. 57; F. J. Bramwell, 68; G. Broadrick, 69. Rigi railway: W. Pole, xxxvi. 111.
- Brake-blocks of cast steel, advantages of. Dr. Röhrig, xlix. 311.
- of cast iron. A. Gottschalk, liv. 317.
- “Efficiency of various kinds of railway brakes; with experimental researches on their retarding power.” W. Fairbairn, xix. 490.—Discussion: R. Sinclair, xix. 518; G. W. Hemans, 518, 523; Mr. Bamorough, 518; C. B. Vignoles, 518, 521; F. J. Bramwell, 519; A. Wightman, 519, 524; T. Hawkeley, 520, 524; Capt. Huish, 522; J. Hawkshaw, 523; W. Pole, 524; A. Chambers, 524; J. F. Bateman, 524; F. Broughton, 524; G. P. Bidder, 525.
- Failure of brakes on the Wadensweil-Einsiedeln railway. Hr. Pippart, liv. 327.
- Flap brakes, performance of. W. Fairbairn, xix. 504.
- Hull's apparatus for working railway brakes, xviii. 70.
- Harmignies' new counter-pressure and vacuum-brake, xli. 289.
- Ingram's auxiliary brake. Performance: W. Fairbairn, xix. 512, 515.
- Principles of the action of railway brakes: W. Fairbairn, xix. 492, 513; T. Hawkeley, 520. Formulas: W. Fairbairn, xix. 493, 515.
- “Railway brakes.” E. Guérin, xvii. 153. (1 plate).—Discussion: J. S. Perring, xvii. 161; W. B. Adams, 165; J. Newall, 168; J. H. Beattie, 168; G. W. Hemans, 169; J. Hawkshaw, 169; Capt. Tyler, 170; T. E. Harrison, 170; J. E. Errington, 171; J. Locke, 171.
- Retarding force of railway brakes. W. Fairbairn, xix. 513.
- Safety drag. “Description of a safety drag or apparatus for preventing accidents to trains ascending inclined planes, used on the Edinburgh and Dalkeith railway since 1832.” W. J. M. Rankine, lii. 284.
- Shoe brake. G. P. Bidder, 70.
- Slide brakes, performance of. W. Fairbairn, xix. 502, 504.
- Steam-brake, J. E. M'Connell's, ii. (1843), 104; W. Fairbairn, xix. 494; Capt. Huish, 523. Performance: Col. Yolland, 510; W. Fairbairn, 514.
- (counter-pressure), Le Chatelier's. F. J. Bramwell, xxxi. 391; xxxvi. 119; xxxvii. 23; O. W. Siemens, 27; F. W. Webb, 30; J. Tomlinson, Jun., 48; J. Robinson, 52.
- Theory of the action of railway brakes. E. Perron, lv. 394.
- Wagon brakes. C. D. Fox, xlv. 116.
- Woods used for brake-blocks, Mauritius railway. J. R. Mosse, xxviii. 245.

## RAILWAYS—BRAKES, CONTINUOUS:—

Applying brakes to several vehicles in the same train. E. Guérin, xvii. 154.

Chambers's continuous brake. W. B. Adams, xvii. 167.

Clark's continuous brake. Mauritius railway, J. R. Mosse, xxviii. 242.

— and Webb's continuous brake on the London and North Western railway, xli. 6, 36, 45; F. J. Bramwell, 71.

Continuous railway brakes. Capt. Huish, xix. 522; T. Hawksley, 523; A. Wightman, 519, 524; A. Chambers, 524; G. P. Bidder, 525;—J. Brunlees, xxi. 360; Sir J. Paxton, 388; G. P. Bidder, 390; Col. Yolland, 400, 413; Earl of Shelburne, 412.

— Continuous brakes. G. Findlay, liii. 83.

— Continuous brakes. C. Schneider, lv. 396.

— on the Southern Railway of Austria. A. Gottschalk, liv. 316.

— United States. Z. Colburn, xxviii. 381; W. B. Adams, 391; Capt. H. W. Tyler, Table A, 414.

Creamer's railway brake, xxii. 240.

Fay's brake: W. Fairbairn, xix. 494, 495. Performance: W. Fairbairn, 497-505, 514; Col. Yolland, 506, 507.

Guérin's brake: E. Guérin, xvii. 158, 169; W. B. Adams, 167; J. Beattie, 169; G. W. Hemans, 169; Capt. H. W. Tyler, 170; T. E. Harrison, 170; J. Locke, 171; W. Fairbairn, xix. 496. Performance: Col. Yolland, 511; W. Fairbairn, 515.

Heberlein brake. M. Massauge, xlv. 254; C. Schneider, lv. 396.

Henderson's hydraulic brake. Capt. D. Galton, liii. 48.

Miles' hydrostatic brake. E. Guérin, xvii. 156; W. B. Adams, 167.

Newall's brake: E. Guérin, xvii. 155; J. S. Perring, 161; W. B. Adams, 166; J. Newall, 168; J. Beattie, 168; J. Hawkshaw, 169; Capt. H. W. Tyler, 170; J. E. Errington, 171; J. Locke, 171;—W. Fairbairn, xix. 494, 495. Performance: W. Fairbairn, xix. 497-505, 513; Col. Yolland, 506-510; R. Sinclair, 518; J. F. Bateman, 524; F. Broughton, 524.

— *versus* Fay's brake. W. Fairbairn, xix. 490; C. B. Vignoles, 518; T. Hawksley, 520.

Pneumatic brake (compressed air) on the Pennsylvania Central railroad. C. D. Fox, xxxi. 383.

Smith vacuum brake. C. Schneider, lv. 397.

Smith-Hardy vacuum brake, Southern Railway of Austria. A. Gottschalk, liv. 316.

Steel's compressed-air brake. C. Schneider, lv. 398.

Stephenson's (G.) simultaneous buffer brake. E. Guérin, xvii. 157.

System of continuous brake, proposed by W. B. Adams, xxviii. 260.

Westinghouse brake. C. D. Fox and F. Fox, xxxix. 72.

— C. Schneider, lv. 397.

— on American railways. Capt. D. Galton, liii. 46.

RAILWAYS—BRIDGES. See *Bridges*.

## RAILWAYS—CARRIAGES:—

American cars *versus* English carriages and wagons. T. Ashbury, liii. 79; F. J. Bramwell, 83; Capt. D. Galton, 88; J. F. Bateman, 89; R. F. Middleton, 95.

**Railways—carriages—continued.**

Belpaire steam-carriage for railways. O. Dutilleul, liv. 328.

Bogies. J. W. Grover, xli. 72.

Bow spring. W. B. Adams, xxiii. 418.

Carriage for tropical climates:—Brazil: W. M. Peniston, xxii. 397. Recife and São Francisco railway: W. M. Peniston, xxii. 397, 406. Pernambuco railway: G. O. Mann, xxiv. 11. Great Indian Peninsula railway: G. O. Mann, xxiv. 11; G. Berkley, 18.

Cars. Narrow gauge *versus* broad gauge. Capt. D. Galton, liii. 59.

Compression-buffer and coupling for cars on American railways. Capt. D. Galton, liii. 48; C. D. Fox, 70.

Draw-gear, a new standard, for railway carriages, l. 250.

Life of railway carriages. E. Fletcher, xxiv. 460; T. E. Harrison, 494.

Maintenance and renewal of railway carriages: E. Fletcher, xxiv. 461; tables, 462-468; G. P. Bidder, 508.

Pullman cars. Capt. H. W. Tyler, xxviii. 415;—F. W. Webb, xxxix. 91; W. H. Barlow, 96; Dr. Pole, 107; G. Berkley, 113;—J. J. Allport, xli. 67.

— on the Midland railway. G. Findlay, liii. 82; F. J. Bramwell, 84.

"Rankine's (Lieut. D.) spring contractor, description of." W. J. M. Rankine, ii. (1843), 111.

Weight of carriage stock. G. Findlay, xlv. 129; J. J. Allport, 134.

— of the Great Southern and Western railway. A. McDonnell, xlviii. 5.

Dublin and Drogheda railway: Dimensions and weight of carriages. Maj.-Gen. Pasley, v. 243. Great Western railway, 244.

Festiniog railway, carriages on the. Capt. H. W. Tyler, xxiv. 362, 363.

German railways, carriage stock of. R. Crawford, xxii. 25.

Italian railways, normal dimensions for plant and fittings, lii. 311.

Mont Cenis railway. Carriages with iron wheels, radial axles, and central buffers. J. A. Longridge, xxxi. 383; J. B. Fell, 392.

North Eastern railway, ages of carriage stock on the. E. Fletcher, xxiv. 461; tables, 462-468, 485; T. E. Harrison, 493.

Norway: Carriages of the narrow-gauge railways. C. D. Fox, xxvi. 51. Queensland, xxvi. 54.

Port Augusta and Port Darwin railway carriages. S. C. Patterson, lvi. 40.

Prussia, Railways in. Repair and renewal of railway carriage stock. T. A. Rochussen, xxv. ; tables 440, 442. Weight and cost, 432; tables, 439.

United States, cars in the. Z. Colburn, xxviii. 378; G. Berkley, 395; W. B. Adams, 397; W. Atkinson, 406; Capt. H. W. Tyler, 414; W. Lloyd, 421; J. J. Birckel, 431; O. Younghusband, 433.—Capt. D. Galton, liii. 31, 59; C. D. Fox, 69.

— Cars on the Pennsylvania railroad: C. D. Fox and F. Fox, xxxix. 67, 70, 73, 82, 83. "Compromise" cars for varying gauges, 76.

**RAILWAYS—CARRIAGES—LIGHTING AND HEATING:—**

Defries' roof lamps, xviii. 162.

Heating apparatus for passenger cars on American railways. Capt. D. Galton, liii. 49; Baker car-warmer, 49.

Lighting of railway carriages, lvi. 323.

— by compressed gas. M. Brock, liii. 349.

Warming railway carriages (cost of various systems). F. Clérault. li. 316.

## RAILWAYS—COST, FIRST :—

- Alpine railways. Capt. H. W. Tyler, xxvi. 390; J. Brunlees, 394.  
 American railways. Cost. C. H. Gregory, xviii. 66;—C. D. Fox and F. Fox, xxxix. 75; Dr. G. Stürmer, 357.  
 Atmospheric railway. Cost. P. W. Barlow, iv. 118.  
 Australian (South) railway. R. C. Patterson, lvi. 26.  
 Bilbao Iron Ore Company's railway. F. C. Barra, li. 251, 254.  
 Charing Cross railway. Cost. J. W. Barry, xxvii. 428, 431; J. Hawkshaw, 433.  
 Eibenthal mineral railway. F. Gamillschegg, lii. 323.  
 English railways, capital cost of. W. Harding, viii. 180;—C. D. Fox and F. Fox, xxxix. 75; Dr. G. Stürmer, 357.  
 European railways. Dr. G. Stürmer, xxxix. 356.  
 Germany, railways in. Cost. R. Crawford, xxii. 4, 5, 12; Dr. G. Stürmer, xxxix. 356.  
 Hungary, light railways. Cost. M. Fournier, xlv. 283, 284.  
 Ilfracombe light railway. Cost. W. R. Galbraith, xxxix. 103.  
 Indian railways. Cost. J. J. Berkley, xix. 587; G. Berkley, 611.  
 — Great Indian Peninsula railway. Quantities and cost. J. J. Berkley, xix. 593, 594, 596, 597, 605, 609.  
 Ireland. Great Northern and Western railway. Cost. J. F. Blair, xxvi. 67.  
 — Railways in; detail cost of principal lines. G. W. Hemans, xviii. 38.  
 Italian railways. Cost. xlviii. 283; xlix. 305.  
 Japan, prices of railway work. W. F. Potter, lvi. 9.  
 Lausanne-Ouchy railway. Incline, worked by rope-gear, liii. 336.  
 Lisbon and Santarem railway. Cost. J. S. Valentine, xviii. 20.  
 Narrow-gauge railways. Quantities and costs. J. Morandière, xlvii. 324.  
 — Egartiria, Greece. Cost. Ch. Ledoux, xxxix. 339.  
 — Ocholt to Westersede (Oldenburg). Cost. G. Plate, i. 245.  
 — Rostoken-Marksdorf, Hungary. Cost. P. Klunzinger, xlv. 248.  
 Norway, light railways. Cost. C. D. Fox, xxvi. 50.  
 Pennsylvania railroad. Cost. C. D. Fox and F. Fox, xxxix. 63, 118; G. Berkley, 114.  
 Queensland railways. C. D. Fox, xxvi. 58, 59, 78.  
 Railway turntable (42 feet), Bristol and Exeter railway. Cost. J. J. Macdonnell, x. 245.  
 Rajpootana (State) railway. Cost. H. Bell, i. 154, 155.  
 Recife and São Francisco railway. Quantities and cost. W. M. Peniston, xxii. 394, 408.  
 St. Gothard railway. Cost. G. Pacho, xlviii. 274-277.  
 São Paulo railway. Cost. D. M. Fox, xxx. 48; J. Bayliss, 73.  
 Santiago and Valparaiso railway and other railways of Chili. Cost. W. Lloyd, xxiii. 396.  
 Seinde railway. Quantities and cost. J. Brunton, xxii. 458, 484, 494.  
 Station, Cannon street. Quantities and cost. J. W. Barry, xxvii. 427; W. H. Barlow, 432.  
 — St. Pancras. Quantities and cost. W. H. Barlow, xxvii. 432; xxx. 78.  
 — Shields. Newcastle and North Shields railway. B. Green, v. 231.  
 Swedish railways. Cost. By M. Longridge, xxxix. 98.  
 Thirk and Malton railway. Cost. T. E. Harrison, xxvi. 73.  
 Uetli mountain railway, Zurich. Cost. J. Moschelles, xlix. 308.  
 See *Railway gauges—comparison of gauges.*

## RAILWAYS—CURVES AND JUNCTIONS:—

- Centrifugal force on curves. J. G. Morrison, xxxi. 394.  
 Curves. T. E. Harrison, xxxv. 238; W. T. Thornton, 444.  
 Cycloscope for setting out railway and other curves. H. T. Humphreys, xxv. 508.  
 "Description of a method of laying down railway curves on the ground." W. J. M. Rankine, ii. (1843), 108.  
 Elevation of the outer rail in curves: W. B. Adams, xxiii. 418; C. B. Vignoles, 432; G. W. Hemans, 432; E. Woods, 435; T. E. Harrison, 436;—Capt. H. W. Tyler, xxiv. 360.—Rule: J. Price, xxx. 193, 218; C. B. Vignoles, 217.  
 "Railway junctions." A. Beanlands, vii. 204.  
 Reversed curves. C. B. Vignoles, xxiii. 431; J. S. Russell, 431; J. Hawkshaw, 437.  
 "Setting out railway curves." C. Bourns, (T.) iii. 295; C. Bourns, i. (1840), 56; R. C. May, i. (1841), 96.  
 Sharpest curve met with. H. Conybeare, xxvi. 339.

## RAILWAYS—CUTTINGS AND EMBANKMENTS:—

- "Account of the landslip in Ashley, cutting, on the line of the Great Western railway." J. G. Thomson, iii. 129.—Discussion: G. Lowe, iii. 133; T. Sopwith, 134; A. Slate, 134.  
 Causes of landslips. J. Gaudard, xxxix. 223.  
 Cutting and embankments of London clay. Capt. W. S. Moorsom, xxii. 34.  
 — in Germany. J. Crawford, xxii. 12; T. E. Harrison, 32; J. S. Russell, 36; F. W. Shields, 40.  
 — on the Eastern Counties railway. M.-Gen. Pasley, iii. 146; Sir H. T. Delabèche, 156; P. Bruff, 158.  
 "Description of an instrument for setting out the width of cuttings and embankments of railways, canals, or roads, as particularly applicable to falling or side-lying ground." H. Carr, i. (1839), 52.  
 "— of the method employed in draining some banks of cuttings on the London and Croydon and London and Birmingham railways; and a part of the retaining wall of the Euston incline of the London and Birmingham railway." T. Hughes, iv. 78.—Discussion: R. B. Dockray, iv. 82; R. Stephenson, 83; Sir J. Rennie, 85.  
 Drainage of cuttings and embankments. J. G. Thomson, iii. 132, 144; Gen. Pasley, 146, 152; G. H. Phipps, 147; C. H. Gregory, 148, 150; J. B. Dockray, 148; J. Smith (Deanston), 151; G. W. Buck, 153; J. Simpson, 154; Rev. H. Clutterbuck, 155; Sir H. T. Delabèche, 156, 157; Capt. W. S. Moorsom, 157; P. Bruff, 160, 163;—Capt. W. S. Moorsom, xviii. 440;—J. Gaudard, xxxix. 227, 231; G. Gerstel, 309;—R. Lefebvre, iv. 338.  
 "Formation of embankments, and the filling-in behind retaining walls." J. B. Hartley, i. (1841), 143.  
 Geological sections of railway cuttings. T. Sopwith, i. (1841), 61.  
 "Method of representing by diagram, and estimating the earthwork in excavations and embankments." J. J. Waterston, (T.) i. 227.  
 "Notes on the consolidation of earthworks." (S.) J. Gaudard (translated by J. Dredge), xxxix. 218.  
 "Railway cuttings and embankments; with an account of some slips in the

**Railways—cuttings and embankments—continued.**

London clay, on the line of the London and Croydon railway." C. H. Gregory, iii. 135.—Discussion: E. Cowper, iii. 145; Gen. Pasley, 145, 148, 152; P. Bruff, 147, 158; G. H. Phipps, 147, 169; F. Braithwaite, 147, 169; C. H. Gregory, 148, 150; J. Hoof, 148; J. B. Dockray, 148; J. Taylor, 150; J. Smith (Deanston), 151; J. Hawkshaw, 152; T. Sopwith, 152; F. Forster, 153; J. G. Thomson, 153; G. W. Buck, 153; J. Simpson, 153; Rev. J. C. Clutterbuck, 154, 171; Sir H. T. Delabèche, 155, 168, 169; Capt. W. S. Moorsom, 157; J. Colthurst, 163, 168; R. Sibley, 168; J. Green, 169, 171; J. Walker, 170; T. Hughes, 171.

Slipping of embankments: Sir H. T. Delabèche, iii. 156, 158;—M. A. Borthwick, vi. 158. Great Western railway: J. Colthurst, iii. 163. Amsterdam and Rotterdam railway: Chev. Conrad, vi. 150. Tiligul embankment, Odessa-Balta railway: J. Pander, xlv. 250.

Slips of cuttings on the London and Birmingham railway. R. B. Dockray, iii. 148.

— and embankments on the Schüssburg-Kronstadt railway. G. Gerstel, xxxix. 309.

"Slopes of cuttings." (S.) W. Airy, lv. 241.

Soils. Nature of soils, and on slips in clay soils (cuttings and embankments in clay). R. Lefebvre, lv. 338.

**RAILWAYS—CUTTINGS AND EMBANKMENTS—RETAINING WALLS:—**

Historical notice. Sir J. Rennie, v. 41.

Best form of retaining walls. Dr. H. Zimmermann, xli. 236.

Equilibrium of pulverulent bodies: retaining walls. Prof. J. Boussinesq, li. 277.

Form and treatment of retaining walls. J. B. Hartley, i. (1841) 143;—J. Gaudard, xxxix. 218.

"Introduction of constructions to retain the sides of deep cuttings in clays or other uncertain soils." Prof. Hosking, iii. 355.—Discussion: Gen. Pasley, iii. 367; Capt. Vetch, 369; Prof. Hosking, 371.

Retaining wall of the eastern incline of the London and Birmingham railway. Prof. Hosking, iii. 357. Drainage of the wall: T. Hughes, iv. 78.

Strutting of the Chorley cutting, Bolton and Preston railway, by A. J. Adie. Maj.-Gen. Pasley, iii. 367.

Thrust of earth and the stability of abutments. H. Resal, l. 196.

**RAILWAYS—ECONOMY AND WORKING:—**

Apparatus for recording movements of railway trains. C. Babbage, xxi. 385.

Block system. W. H. Preece, xxvi. 82.

Brake power of trains: Col. Yolland, xxi. 401.

— in Germany: Col. Yolland, xxi. 402;—R. Crawford, xxii. 26.

"Economy of railways as a means of transit, comprising the classification of the traffic, in relation to the most appropriate speeds for the conveyance of passengers and merchandise." B. Poole, xi. 450.—Discussion on this and Capt. M. Huish's Paper on railway accidents: C. May, xi. 461, 464, 470; W. Harding, 461, 464, 469; Capt. Huish, 461, 462, 472, 476; R. Stephenson, 462, 464, 468, 475, 476; J. Hawkshaw, 464, 473; B. Poole, 464, 472; C. H. Gregory, 464; J. Locke, 466, 468; A. Slate, 468; C. B. Vignoles, 468; G. P. Bidder, 469; I. K. Brunel, 471; W. Fairbairn,

**Railways—economy and working—continued.**

475; Gen. Sir C. Pasley, 475; Gen. MacNeill, 475; P. W. Barlow, 476; P. Bruff, 476; C. E. Cawley, 477.

**Gradients.** "Steep gradients of railways, and the locomotives and stationary engines employed." C. R. Drysdale, xv. 349.—Discussion: see *Locomotives on steep inclines, working and performance of* (p. 150).

— "Use of locomotive power on gradients of 1 in 17, and curves of 100 feet radius, in America." T. S. Isaac, xviii. 51.—Discussion; see *Locomotives on steep inclines, working and performance of* (p. 150).

— "Working of steep gradients and sharp curves on railways." Capt. H. W. Tyler, xxvi. 310.—Discussion: see *Locomotives on steep inclines, working and performance of* (p. 150).

**Indian railways.** Conveyance by railway *versus* water. J. A. Longridge, xxi. 5, 6, 25.

**Intervals between trains.** Time *versus* space. J. Brunlees, xxi. 356; C. W. Siemens, 384; Col. Yolland, 398.

**Lighting of trains by gas in the Mont Cenis tunnel,** xlviii. 328.

**London and North Western railway:** G. Findlay, xli. 1, 34, 38. The Royal train, 11. Additional lines between London and Rugby. G. Findlay, 35, 18; R. C. Rapier, 42; F. W. Webb, 43; J. J. Allport, 65. Policy of additional lines: R. Price Williams, xli. 51.

**Measures for protecting railways from snow, as adopted on American and European lines.** Ernest Pontzen, xxxix. 354.

**Mileage.** Calculation of mileage run. T. A. Rochussen, xxv. 447.

— Train-mile: what is it? F. W. Webb, xli. 43; J. A. Baynes, 45.

"Observations on the present mode of executing railways, with suggestions for a more economical, yet equally efficient, system of both executing and working them." F. Whishaw, i. (1839), 58.

**Railway servants, good, characteristics of.** Sir J. Paxton, xxi. 388; J. Brunlees, 419.

**Speed.** Economical speed on inclines. Capt. W. S. Moorsom, xxii. 84.

— on German railways. R. Crawford, xxii. 26.

— of trains. J. J. Allport, xli. 67; F. J. Bramwell, 69.

— of railway trains as influencing their safety. Dr. H. Scheffler, lii. 332.

— Rapid transit and terminal freight facilities, xli. 277.

— of railway trains. A. von Borries, xliii. 337.

**Steam traction on light [mineral] railways.** M. Colrat, l. 246. Locomotive power *versus* horses' power, 247.

"Working of railways." G. Findlay, xli. 1. (5 plates.)—Discussion: see J. T. Harrison's Paper on Railway Statistics (p. 249).

**Working steep inclines with two engines.** F. W. Webb, xli. 43; J. J. Allport, 66.

See *Coals*, shipment of; *Locomotives*, working and performance of; *Minerals*, shipment of.

**RAILWAYS—ECONOMY AND WORKING—COMMUNICATION IN TRAINS:—**

"Best means of communication between the passengers, guards, and drivers of trains in motion." W. H. Preece, xxvi. 80. (1 plate.)—Discussion; W. H. Preece, xxvi. 92, 113; J. J. Allport, 94, 96, 117; E. Tattersall, 95; F. J. Bramwell, 96; N. Beardmore, 97; S. A. Varley, 97; C. E. Spaguoletti, 98; C. V. Walker, 101; J. W. Bazalgette, 105, 112;

**Railways—economy and working—communication in trains—continued.**

- J. P. Knight, 105; Capt. H. W. Tyler, 106; T. E. Harrison, 112; C. H. Gregory, 115; W. H. Barlow, 117.
- Committee of General Managers. W. H. Preece, xxvi. 81; J. J. Allport, 94; Capt. H. W. Tyler, 109; T. E. Harrison, 112.
- Communication in railway trains. D. A. Carr, xxxviii. 196.
- Electric communication: bell system. London and South Western railway. W. H. Preece, xxvi. 86, 90, 92; E. Tattersall, 96; F. J. Bramwell, 96; Capt. H. W. Tyler, 109.
- Great Western railway. H. Spagnoletti, xxvi. 98.
- London and North Western railway: Martin's system. S. A. Varley, xxvi. 97.
- Midland railway. W. H. Preece, xxvi. 94, 114; J. J. Allport, 94.
- Ordinary signals. E. G. Bartholomew, xxii. 320.
- Rope and bell system. W. H. Preece, xxvi. 85, 113; J. J. Allport, 95, 96, 117; E. Tattersall, 95; T. E. Harrison, 112.
- Safety-cage, by W. J. Baker. H. Spagnoletti, xxvi. 101; W. J. Baker, 101.
- South Eastern railway: bell system. C. V. Walker, xxvi. 101; J. P. Knight, 105.

**RAILWAYS—ECONOMY AND WORKING—SORTING SIDINGS:—**

- Facing points at refuge sidings. J. J. Allport, xli. 65.
- Railway-aiding stop, by C. H. Gregory, x. 192.
- Self-acting chock. T. E. Harrison, xviii. 501, 516.
- Shunting sidings on the London and North Western railway, southern division. G. Findlay, xli. 9.
- by gravitation. H. Footner, xli. 39.
- “Sorting railway trains by gravitation.” W. Cudworth, xli. 19. (1 plate.)
- Discussion: see J. T. Harrison's Paper on Railway Statistics (*seq.*).
- Sorting sidings for marshalling goods trains. J. Michell, xlviii. 285.
- for coal wagons, Middlesbrough-on-Tees. G. Turnbull, v. 251.
- by gravitation, Tyne docks: T. E. Harrison, xviii. 500.
- by gravitation. J. Murray, xviii. 505.
- Gridiron sidings at Edgehill. G. Findlay, xli. 13, 56; H. Footner, 38; R. C. Rapier, 41.
- at Shildon: W. Cudworth, xli. 19. 76.
- at Chaddesden: J. J. Allport, xli. 61. Cost of working them, 62.
- at Toton. J. J. Allport, xli. 61; cost of working them, 62.

**RAILWAYS—EMBANKMENTS IN WATER:—**

- “Construction of the sea embankments, across the estuaries Kent and Leven, in Morecambe bay, for the Ulverstone and Lancaster railway.” J. Brunlees, xiv. 239.
- Dublin and Drogheda railway: Embankment in the Clontarf estuary. G. W. Hemans, xiv. 247. In the Malahide estuary, 247.
- Lake dam at Rapperswil, Zurich (embankment across Lake Zurich), lv. 376.
- Londonderry and Coleraine railway: Embankment across Rosse's bay, river Foyle. J. Brunlees, xiv. 249.
- Lough Owel. Embankment in Lough Owel. G. W. Hemans, xiv. 248.
- River embankments, Lisbon and Santarem railway. J. S. Valentine, xviii. 12.



RAILWAYS—FERRIES. See *Ferries*.

RAILWAYS—GAUGES:—

Historical notices. Sir J. Rennie, v. 75.

British standard railway gauge, origin of. J. A. Longridge, lvi. 76.

Legally enforced: Capt. H. W. Tyler, xxiv. 365.

Conversion from broad gauge to narrow gauge. J. W. Grover, xxxv. 396;  
W. T. Thornton, C.B., 454. Pennsylvania railroad: C. D. Fox and  
F. Fox, xxxix. 76. Grand Trunk railway: C. F. Fox, 123. Great  
Western railway: J. Armstrong, xlviii. 44.

America, railways in. C. D. Fox and F. Fox, xxxix. 76;—Capt. D. Galton,  
liii. 30. Canada: A. Macdougall, liii. 94, 95.

Antwerp and Ghent railway. R. Mallet, xxiv. 376.

Australia. R. C. Patterson, lvi. 25, 31, 42. Queensland: Capt. H. W.  
Tyler, xxiv. 367, 370, 371;—C. D. Fox, xxvi. 53, 60, 61, 63;—J. F. L.  
Jetter, lvi. 46; C. H. Gregory, 55. Motives for the 3 $\frac{1}{2}$ -feet gauge: A. C.  
FitzGibbon, lvi. 79. Victoria: W. B. Lewis, lvi. 85.

Chili. E. Woods, xxvi. 67, 69.

Germany. R. Crawford, xxii. 7; C. B. Vignoles, 29.

Hungarian railways. J. Lawson, lvi. 83.

India: Sir C. Fox, xxiv. 369, 370. Correspondence as to gauge of railways  
in India, xxxv. 469. Report of W. Simms, 470. Report of C. B. Vignoles  
on the Hindostanee railway, 476.

— Indian tramways. C. D. Fox, xxvi. 51, 63.

Japanese railways. W. F. Potter, lvi. 2, 23.

Norway, railways in. Capt. H. W. Tyler, xxiv. 365; P. Bruff, 371, 372;—  
C. D. Fox, xxvi. 50, 63.

Russia. H. Hayter, lvi. 15.

Spain. W. Atkinson, lvi. 21.

Sweden, railways in. C. P. Sandberg, xxxix. 195.

Switzerland (Western), railways of. J. Meyer, lvi. 317.

Wales. Festiniog railway. Capt. H. W. Tyler, xxiv. 359, 366.

— Talylyn railway. Capt. H. W. Tyler, xxvi. 73.

RAILWAYS—GAUGES—BREAK OF GAUGE:—

Break of gauge: Capt. H. W. Tyler, xxiv. 366; G. W. Hemans, 368; Sir C.  
Fox, 369, 370; G. P. Bidder, 378; E. Woods, 379; C. H. Gregory, 383;  
J. Brunlees, 386; W. R. Galbraith, 387; Sir C. P. Roney, 388;—C. D.  
Fox, xxvi. 60, 63; G. W. Hemans, 64;—R. Price Williams, xxxv. 354;—  
Capt. D. Galton, liii. 62; C. D. Fox, 71; A. Macdougall, 94.

— India. T. Hawkeley, xxxiii. 341;—W. T. Thornton, C.B., xxxv. 223,  
449; W. P. Andrew, 229, 372; T. E. Harrison, 240; J. Hawkahaw, 244;  
G. P. Bidder, 248; Maj.-Gen. Strachey, 260; C. Pihl, 272; C. D. Fox, 275,  
279; Sir G. B. Airy, 280; Capt. D. Galton, 285; H. L. Smith, 293;  
J. Allport, 310; Capt. H. W. Tyler, 318; C. E. Spooner, 322; Lord  
Lawrence, 324; J. Danvers, 328; J. Brunlees, 336; A. M. Rendel, 358,  
366; Col. Yolland, 370; G. Berkley, 385, 393; Col. J. P. Kennedy, 394;  
J. Mitchell, 399; E. Woods, 406; Gen. Sir L. Simmons, R.E., 408; E. W.  
Young, 414; J. Grierson, 417; G. Turnbull, 427, 429; Dr. W. Pole, 433;  
J. E. Tanner, 435; T. Hawkeley, 466.

— South Australian railways. R. C. Patterson, lvi. 31, 42; R. Price Wil-  
liams, 65; E. Woods, 71; J. Lawson, 82.

## RAILWAYS—GAUGES—COMPARISON OF GAUGES:—

Narrow gauge *versus* broad gauge. Capt. H. W. Tyler, xxiv. 366, 367; G. W. Hemans, 368; P. Bruff, 373; G. H. Phipps, 375; R. Mallet, 376, 388; G. P. Bidder, 377; T. Savin, 377; W. B. Adams, 381; C. H. Gregory, 382; T. E. Harrison, 383; A. Giles, 384; J. J. Allport, 385; J. Brunlees, 386; P. W. Barlow, 388;—G. W. Hemans, xxvi. 63; G. B. Bruce, 65; J. F. Blair, 66; P. R. Hodge, 70; F. W. Sheilda, 70; Capt. H. W. Tyler, 72; W. B. Adams, 74;—Capt. D. Galton, liii. 57;—H. Hayter, lvi. 15; G. Berkley, 49; C. D. Fox, 52; J. L. Haddan, 56; E. W. Young, 63; W. Forster, 69; C. Graham Smith, 73; A. C. Pain, 74; G. B. Bruce, 75; J. A. Longridge, 76; W. H. Barlow, 78; W. Atkinson, 78.

— in Canada. A. MacDougall, liii. 95.

— Ireland. Cost of construction; broad gauge, and narrow gauge. R. Price Williams, xxxv. 341. Cost of maintenance of way, 342.

— Cost of working: T. E. Harrison, xxxv. 242; Maj.-Gen. Strachey, R.E., 260; G. B. Bruce, 270; C. D. Fox, 277; H. L. Smith, 306; Capt. H. W. Tyler, 317; R. Price Williams, 340; Col. J. T. Smith, R.E., 399; W. T. Thornton, C.B., 449.

— India. First cost: Railways in India. W. T. Thornton, C.B., xxxv. 214, 439, 446, 453; T. E. Harrison, 235; J. Hawkshaw, 243; G. P. Bidder, 247; Maj.-Gen. Strachey, R.E., 255, 258; G. B. Bruce, 267; C. D. Fox, 273; W. L. Smith, 288, 307, 311; Capt. H. W. Tyler, 315; C. E. Spooner, 320; Lord Lawrence, 323; J. Danvers, 327; C. B. Vignoles, 331, 480; J. Brunlees, 333, 335; C. P. Sandberg, 337, 520; R. Price Williams, 338; Col. Yolland, 369; W. B. Lewis, 373; G. Berkley, 386, 390; J. W. Grover, 395; J. Mitchell, 398; W. Dennis, 402; E. Woods, 403; Gen. Sir L. Simmons, R.E., 407; J. Grierson, 426; G. Turnbull, 427; Dr. W. Pole, 429; J. E. Tanner, 436, 534; T. Hawksley, 467.

— Capacity of gauges: railways in India. Maj.-Gen. Strachey, xxxv. 258; G. B. Bruce, 269; C. D. Fox, 276; Sir G. B. Airy, 283; Capt. D. Galton, 286; H. L. Smith, 295; J. Allport, 313; R. Price Williams, 347; A. M. Rendel, 361; G. Allan, 377; J. T. Wood, 383; E. W. Young, 413; J. Grierson, 424; G. Turnbull, 428; Dr. W. Pole, 430, 434; J. E. Tanner, 437; W. T. Thornton, C.B., 462.

— Rolling stock: railways in India. Sir C. Fox, xxiv. 369.—W. T. Thornton, C.B., xxxv. 222; T. E. Harrison, 235; G. B. Bruce, 269; R. Price Williams, 346.

## RAILWAYS—GAUGES, LIGHT, OR NARROW:—

Conditions for the establishment of secondary railways. MM. Béral and de Basire, lv. 388.

Construction and working of narrow-gauge and some other secondary railways. J. Morandière, xlvii. 324.

Definition of a light railway. C. D. Fox, xxvi. 49.

Light railways. W. R. Galbraith, xxiv. 387.—C. D. Fox, xxvi. 61; G. W. Hemans, 63; G. B. Bruce, 65; E. Woods, 67; P. R. Hodge, 69; W. R. Adams, 74;—W. T. Thornton, C.B., xxxv. 214; T. E. Harrison, 239; C. D. Fox, 278; H. L. Smith, 290; J. Danvers, 326; J. Brunlees, 333, 335; R. P. Williams, 348; A. M. Rendel, 358; G. Allan, 375; E. W. Young, 413; G. G. Heppel, 416; Dr. W. Pole, 431; J. E. Tanner, 534.

— not suited for inclines and curves. W. R. Galbraith, xxxix. 103.

Railways—gauges, light, or narrow—*continued*.

Light railways on common roads. E. Heusinger von Waldegg, lii. 309.

America. Narrow gauge railways. Capt. D. Galton, liii. 56.

— and Germany. Light railways. W. Shelford, xxxix. 109.

Antwerp and Ghent. Narrow-gauge. R. Mallet, xxiv. 375.

Arconum-Conjevarum light railway. C. D. Fox, xxvi. 51.

Augusta (Port) and Port Darwin railway, South Australia. Narrow gauge. R. C. Patterson, lvi. 32.

Bilbao Iron Ore company. Narrow gauge railway for mineral traffic. F. C. Barron, li. 237.

"Canadian narrow-gauge railways." (S.) E. Wragge, xlviii. 252.

Chili: E. Woods, xxiv. 379. Carrizal railway: E. Woods, xxvi. 67, 69. Tongoi railway: 67, 69.

Denver and Rio Grande. Narrow gauge. G. Allan, xxxv. 375, 528.

Eibenthal mineral railway. Narrow gauge. F. Gamillschegg, lii. 320.

Festiniog. "On the Festiniog railway for passengers; as a 2-feet gauge, with sharp curves, and worked by locomotive engines." Capt. H. W. Tyler, R.E., xxiv. 359.—Discussion: Capt. H. W. Tyler, xxiv. 367; G. W. Hemans, 368; Sir C. Fox, 369; P. Bruff, 371, 375; G. H. Phipps, 375; C. H. Gregory, 375, 382; R. Mallet, 375, 388; T. Savin, 377; G. P. Bidder, 377; E. Woods, 379; W. B. Adams, 380; T. E. Harrison, 383; A. Giles, 384; J. J. Allport, 385; Z. Colburn, 386; J. Brunlees, 386; W. R. Galbraith, 387; P. W. Barlow, 388; Sir C. P. Roney, 388; G. England, 389.

Greece, Algeria, the Gard. Description of some narrow gauge railways. C. Ledoux, xxxix. 338.

Hungary. Construction and cost of light branch railways in Hungary. M. Fournier, xlv. 282.

Ilfrcombe Railway. Light. W. R. Galbraith, xxxix. 102, 110.

India. Narrow gauge. Sir C. Fox, xxiv. 369, 370.

— "The relative advantages of the 5 feet 6 inches gauge, and of the metre gauge for the state railways of India, and particularly for those of the Punjab." W. T. Thornton, C.B., xxxv. 214. (1 plate.)—Discussion: W. P. Andrew, xxxv. 229, 371; T. E. Harrison, 234; J. Hawkshaw, 243; G. P. Bidder, 246; Maj.-Gen. Strachey, R.E., 254, 333; G. B. Bruce, 265; C. Pihl, 271; C. D. Fox, 273; Sir G. B. Airy, 280; Capt. D. Galton, R.E., 283; H. L. Smith, 288; J. J. Allport, 310; Capt. H. W. Tyler, 314; C. E. Spooner, 320; Lord Lawrence, 323; J. Danvers, 326; C. B. Vignoles, 329; J. Brunlees, 333; C. P. Sandberg, 337, 520; R. Price Williams, 338; A. M. Rendel, 355; Col. Yolland, 369; A. S. Ormsby, 370; W. B. Lewis, 723; G. Allan, 375, 528; J. T. Wood, 380; G. Berkley, 385; Col. J. P. Kennedy, 394, 529; J. W. Grover, 395; J. Mitchell, 398; Col. J. T. Smith, R.E., 399; W. Dennis, 402; E. Woods, 403; Gen. Sir L. Simmons, R.E., 407; E. W. Young, 413; G. G. Heppel, 416; J. Grierson, 417; G. Turnbull, 426; Dr. W. Pole, 429; J. E. Tanner, 434, 534; W. T. Thornton, 438; T. Hawksley, 465.

— Metre gauge. "The Rajpootana state railway." (S.) H. Bell, l. 148.

Laufen. Narrow gauge. Differential tramway at the stone quarries of Laufen, Switzerland, lvii. 346.

Norway. Norwegian railways. Narrow gauge. Capt. W. H. Tyler, xxiv. 365; P. Bruff, 371, 372;—C. D. Fox, xxvi. 50.

Railways—gauges, light, or narrow—*continued*.

Norway, India, and Queensland. "On light railways in Norway, India, and Queensland." C. D. Fox, xxvi. 49. (3 plates).—Discussion: C. D. Fox, xxvi. 61, 78; G. W. Hemans, 63; G. B. Bruce, 65; J. F. Blair, 66; E. Woods, 67; P. R. Hodge, 69; F. W. Shields, 70; F. J. Bramwell, 72; Capt. W. H. Tyler, 72; T. E. Harrison, 78; W. B. Adams, 74; R. Peacock, 76.

Ocholt to Westersede. Narrow gauge railway. G. Plate, l. 244.

Portmadoc to Gorsedda. Narrow gauge. J. Brunlees, xxiv. 386.

Rostoken to Marksdorf. Narrow gauge mountain railway. P. Klunzinger, xlv. 247.

Sidmouth railway. Light. W. R. Galbraith, xxxix. 103.

Sweden. Light railways. W. Stanley, xxxix. 108.

Wootton. Light. Duke of Buckingham's tramway at Wootton. Dr. Pole, xxxv. 432; W. Lawford, l. 37.

RAILWAYS—INCLINES AND MOUNTAIN RAILWAYS:—

Mountain railways. C. Maader, xli. 274.

"Steep gradients of railways, and the locomotive and stationary engines employed." C. R. Drysdale, xv. 349.—Discussion: *Locomotives for inclines*.

Alps, railways in the. G. Edwards, xxvi. 395.

Baltimore and Ohio railway, inclines and curves of the. T. S. Isaac, xviii. 51. — T. S. Isaac, xviii. 54, 59, 69; G. W. Hemans, 68; Capt. W. S. Moorsom, 69;—M. Cohen, xxvi. 330.

Bhore Ghaut, Giovi, and Semmering inclines, comparative table of. J. J. Berkley, xix. 595.

Bradford incline. J. Hawkshaw, xv. 367.

Brecon and Merthyr railway. W. Conybeare, xxvi. 334.

Brenner Pass. W. Pole, xxvi. 342.

Chili. Tabon incline, &c. W. Lloyd, xxiii. 381, 385.

Edgehill tunnel, Liverpool and Manchester railway, inclined plane at. J. Grantham, i. (1841), 147.

Euston incline. J. Hawkshaw, xv. 367.

Festiniog railway. Capt. H. W. Tyler, xxiv. 359.

Germany, curves and inclines, regulations for, in. R. Crawford, xxii. 7.

Giovi incline. C. R. Drysdale, xv. 357.

Great Western railway gradients. J. Armstrong, xlviii. 43.

Halifax incline. J. Hawkshaw, xv. 367, 368.

Hunt's Bank incline. J. Hawkshaw, xv. 367, 368.

Leeds incline. J. Hawkshaw, xv. 367.

Lickey incline, Birmingham and Gloucester railway, description of. Capt. W. S. Moorsom, ii. (1843), 100; T. Casebourne ii. (1842), 54.

Mauritius railway, Midland line, inclines and curves on the. J. R. Mosse, xxviii. 232.

Mexican railway. W. Lloyd, xxvi. 351.

Mont Cenis railway. Capt. Tyler, 813, 393; C. H. Gregory, 340; J. Brunlees, 341; W. Naylor, 347; J. Abernethy, 370.

Oldham incline. J. Hawkshaw, xv. 367.

Pennsylvania railroad, inclines and curves on the. C. D. Fox and F. Fox, xxxix. 83, 84.

Rostoken-Marksdorf mountain railway. P. Klunzinger, xlv. 247.

**Railways—inclines and mountain railways—continued.**

- Rhymney, Old, railway. W. Conybeare, xxvi. 339.  
 Scinde railway, inclines and curves of. J. Brunton, xxii. 462.  
 Semmering incline. C. R. Drysdale, xv. 349; C. B. Vignoles, 368.  
 Thul Ghaut incline, Great Indian Peninsula railway. J. J. Berkley, xix. 597.  
 Virginia Central railroad. Mountain-top incline. T. S. Isaac, xviii. 55, 60.  
 Zig-zag system first proposed by G. Stephenson. J. Coode, xviii. 69.  
 — Bhoze Ghaut, Great Indian Peninsula railway. J. J. Berkley, xix. 595.

**RAILWAYS—LEGISLATION AND GOVERNMENT INSPECTION:—**

- Board of Trade, interference of. J. S. Russell, ix. 181, 245; C. Manby, 242; C. B. Vignoles, 244; Capt. W. S. Moorsom, 244; J. Simpson, 244.  
 — inspectors of. G. P. Bidder, xxi. 390; Col. Yolland, 403; Capt. Tyler, 409; J. Hawkshaw, 423.—A. M. Rendel, xxxv. 359.  
 — Regulations as to proportions of iron railway structures, operation of. T. E. Harrison, xxv. 258; J. Hawkshaw, 258; G. H. Phipps, 259; J. Freeman, 260; G. Berkley, 260; J. Fowler, 261.  
 — regulations. T. E. Harrison, xxvi. 73.  
 Government inspection. E. Woods, xxvi. 69.  
 German railways, legislation on: C. B. Vignoles, xxii. 28. Rules and regulations: T. E. Harrison, 31; Capt. W. S. Moorsom, 33; J. S. Russell, 36.  
 Indian railways. Government supervision and interference. Capt. W. S. Moorsom, xviii. 440.  
 Standing orders of Parliament. G. P. Bidder, xxiv. 378.

**RAILWAYS—MOTIVE POWER, VARIOUS:—**

- Historical notices. Capt. H. W. Tyler, xxvi. 310.  
 Electro-magnetic engines, by R. Davidson. R. Hunt, xvi. 391.  
 Pneumatic system. Sir C. Fox, xxvi. 386; Capt. H. W. Tyler, 392.  
 Hydro-pneumatic system. G. Edwards, xxvi. 395.  
 — Water-pressure locomotive in South Hetton colliery. W. G. Armstrong, ix. 378, 381.

**RAILWAYS—MOTIVE POWER FOR STEEP INCLINES:—**

- Central-rail system, by J. B. Fell, xxvi. 312; J. Brunlees, 341;—J. A. Longridge, xxviii. 257; J. B. Fell, 280;—V. G. Bell, xxx. 69; J. A. Longridge, 73.  
 Flachet's proposal for coupling all the wheels of train, xxvi. 311.  
 Grassi's screw-motor, xxvi. 311.  
 Locomotive driving-wheels with friction grooves. Capt. H. W. Tyler, xxvi. 310, 388; J. W. Grover, 387.  
 Rack-rail, Blenkinsop's, xxvi. 361.  
 — on the Rigi railway. W. Pole, xxx. 103;—C. Maader, xli. 276.  
 — Schwabenberg railway. C. Maader, xli. 276. Kahlenberg railway, 276. In Switzerland, 276.  
 — Riggensbach and Zschokke's system. C. Maader, xli. 275. Ostermündingen railway, 277.  
 — for steep gradients. R. Abt. lii. 318.  
 — Differential locomotive power, with rack-rail, at Laufenquarries, lvii. 346.  
 — Wasseraalfingen. B. Lebrecht, liii. 336.  
 Utilisation of the engine-tender, by A. Sturrock, xxvi. 312.

**Railways**—Motive power for steep inclines—*continued*.

Wetli's system of railway construction. H. Brockmann, xl. 274.

See *Locomotives* for steep inclines.

**RAILWAYS**—MOTIVE POWER FOR STEEP INCLINES: stationary engine power and rope traction :—

Historical notice. Sir J. Rennie, v. 78.

Atmospheric system of traction. See *Railways*, atmospheric.

Carriage of heavy materials over high and steep watersheds (comparison of rope-systems). J. Schmidhammer, xli. 269.

Stationary engines *versus* locomotives. Capt. W. S. Moorsom, ii. (1843), 103.

Blackwall railway. \* Description of the machinery erected by Messrs. Maudslay, Sons, and Field, at the Minories Station, for working the London and Blackwall railway." A. J. Robertson, v. 143.—Discussion: J. Farey, v. 155, 157, 158; G. P. Bidder, 156, 158; R. Stephenson, 156, 158; S. C. Homersham, 157; J. Walker, 158; A. Wightman, 159.

— Traction by wire rope on the. A. J. Robertson, v. 154. J. Farey, 155; A. Wightman, 159.

Cornwall. Working the Botallack incline. J. Coode, xxx. 74.

— West Cornwall railway. Capt. W. S. Moorsom, x. 251.

Cowairs incline, Edinburgh and Glasgow railway: Captain W. S. Moorsom, ii. (1843), 103;—C. R. Drysdale, xv. 360, 362.

Croix-Rousse, near Lyons, rope railway, with stationary engine at. C. Maader, xli. 275.

Düsseldorf-Elberfeld railway, working steep inclines by tail ropes on the. R. Crawford, xxii. 8.

Euston Square incline, London and Birmingham railway, cost of working. Capt. W. S. Moorsom, ii. (1843), 103.

Great Western railway. Cost of working Box tunnel incline. Capt. W. S. Moorsom, ii. (1843), 103.

Hetton (South) colliery, water-pressure engine in. W. G. Armstrong, ix. 378, 381.

Hownes (Old) Gill inclines on the Stanhope and Tyne railway. W. Cudworth, xxii. 44.

Lausanne-Ouchy railway, rope-traction, on incline, liii. 334.

Leopoldsberg, near Vienna, stationary engine and tail-end ropes, on railway at. C. Maader, xli. 274.

Liverpool. Working Lime Street tunnel. G. J. Morrison, xlix. 15.

— "Stationary engines at the new tunnel on the Liverpool and Manchester railway." J. Grantham, i. (1841), 146.

Other railway, stationary engine and endless rope. C. Maader, xli. 274.

Oldham incline. Newall's rope, wire. Capt. J. M. Laws, x. 248.

— "Description of the mode of working an incline of 1 in 27½ on the Oldham branch of the Lancashire and Yorkshire railway" Capt. J. M. Laws, x. 246.—Discussion: Capt. J. M. Laws, R.N., x. 248, 254; J. Hawkshaw, 249, 253, 256; W. Harding, 250, 255; Capt. W. S. Moorsom, 251, 254; T. E. Harrison, 252; A. Sinclair, 252; R. Stephenson, 253, 254, 256; J. Pym, 254.

— Oldham branch of the Lancashire and Yorkshire railway: Capt. J. M. Laws, x. 246;—G. R. Stephenson, xxvi. 384.

Railways—motive power on steep inclines.—Stationary-engine power and rope traction—*continued*.

- Pittsburg, U.S., stationary engine and tail-end ropes. C. Maader, xli. 275.  
 Pontop railway. T. E. Harrison, x. 252.  
 Prague, (Inclines worked by tail-ropes): Removal of earth by machinery from Zizka tunnel. F. Rziha, xxxix. 323.  
 S. Agudio, stationary engines and endless rope, by, xxvi. 319. Trials, 321.  
 St. Helen's railway. A. Sinclair, x. 252.  
 São Paulo railway, inclines worked by tail-ropes on the. D. M. Fox, xxx. 39, 54; J. Brunlees, 57; J. Coode, 74.  
 Serra inclines. Steel-wire ropes *versus* iron-wire ropes. J. Coode, xxx. 74.  
 Sestao harbour, inclined plane worked by self-acting chain gearing at. F. C. Barron, li. 247.  
 Tyler Hill. Rope traction *versus* atmospheric traction:—Experiments on the inclined plane of the Canterbury and Whitstable railway, comparing rope, traction and atmospheric traction. P. W. Barlow, iv. 122.

RAILWAYS—PERMANENT WAY. See *Permanent way* of railways.

RAILWAYS—POLICY AND MANAGEMENT:—

- Capital account. G. P. Bidder, xxviii. 282.  
 Directorial management. G. P. Bidder, xxi. 389; Capt. D. Galton, R.E., 416.  
 Government railways: Mauritius railways. J. Hawkshaw, xxviii. 266; Col. Morrison, 278.  
 Gradients. J. Hawkshaw, xxviii. 266, 285; G. P. Bidder, 281.  
 Manufacture of rails and locomotives by railway companies. B. Stephenson, xi. 463; J. Locke, 466; C. May, 470.  
 Ownership of wagon stock: G. Findlay, xli. 130; J. J. Allport, 134.  
 Policy of additional lines of rails. R. Price Williams, xli. 5.  
 Working railways by contract:—North Staffordshire railway. G. P. Bidder, xxiv. 503.  
 See *Railway Systems*.

RAILWAYS—RECEIPTS AND EXPENDITURE:—

- Capital cost, relation of, to receipts and expenditure. T. E. Harrison, xxvi. 73; W. B. Adams, 74; O. D. Fox, 78.  
 Central-rail system: cost of working. J. A. Longridge, xxviii. 257; J. B. Fell, 280.—V. G. Bell, xxx. 69; J. A. Longridge, 73.  
 Comparative table of receipts, mileage, and locomotive expenses, of six railways. J. Armstrong, xlviii. 52. Great Western railway, 53.  
 Cost of working railways with steep inclines. G. P. Bidder, xviii. 69. Brecon and Merthyr: W. Conybeare, xxvi. 335; E. A. Drew, 382; J. Hawkshaw, 382, 384; T. R. Crampton, 384; Capt. H. W. Tyler, 390.  
 — steep gradient railways, liv. 309.  
 Elements of the cost of transportation, liv. 311.  
 Formulæ for predicting the working cost of any railway, liv. 308.  
 Influence of gradients on cost price of conveyance by railway. M. de Loiseau, lviii. 372.  
 Railway fares. G. Findlay, xli. 37, 79; R. C. Rapier, 40; J. A. Baynes, 48; Sir J. Hawkshaw, 50; R. Price Williams, 54; Col. Martindale, 59; J. J. Allport, 64; T. E. Harrison, 80.

**Railways—receipts and expenditure—continued.**

Table of receipts and expenditure on narrow and broad gauge railways in Canada. E. Wragge, *xlvi.* 255.

Tests of expenditure on rolling stock. T. E. Harrison, *xxiv.* 491, 494; J. Hawkshaw, 495; G. P. Bidder, 504, 507.

Working the North Staffordshire railway by contract. G. P. Bidder, *xxiv.* 503.

— cost of railways. Sir J. Hawkshaw, *xli.* 48.

Amsterdam-Rotterdam railway. Chev. F. W. Conrad, *iii.* 195, 196.

Austria, cost price of conveyance by railways in. M. Baum, *xlvi.* 337.

Canada and the United States: table B. Capt. W. H. Tyler, *xxviii.* 414; Z. Colburn, 423.

European railways from 1855 to 1873, the financial statistics of. Dr. G. Stürmer, *xxxix.* 356.

France in 1874, receipts on the six principal railways of. M. Baude, *xl.* 309.

German railways. J. S. Russell, *xxii.* 36.

Great Western railway and competitive routes, table of comparative receipts by the. J. Armstrong, *xlvi.* 49.

Great Southern and Western railway and the Midland Great Western railway, comparative table of receipts, mileage, and locomotive expenditure of the. A. McDonnell, *xlvi.* 58.

Indian railways. G. Berkley, *xix.* 616.

London and Blackwall railway by rope traction, cost of working the. R. Stephenson, *v.* 158.

London and North Western railway, receipts and expenses, in 1874. R. Price Williams, *xli.* 54, 57.

— Coal trains; weight and cost of running. G. Findlay, *xlvi.* 129, 130.

Pennsylvania railroad: C. D. Fox and F. Fox, *xxxix.* 62, 81; R. Price Williams, 104.

Portugal, cost of working the Pomaron railway. W. Lloyd, *xxx.* 67.

Rajpootana (State) railway. H. Bell, *i.* 152; tables, 155, 156.

Swedish railways. M. Longridge, *xxxix.* 98.

See *Locomotives*—cost for repair and renewal.

**RAILWAYS, RESISTANCES ON:—**

Diminution of friction on curves, by super-elevating the outer rail. T. S. Isaac, *xviii.* 59. By oiling the flanges of the leading wheels, 59, 60. By wetting the leading wheels: W. Lloyd, *xxiii.* 393, 397; E. Woods, 400. By wetting the rails: W. Lloyd, 395. By coning the leading wheels: W. Lloyd, 393.

Experimental resistance on curves—fixed wheels *versus* loose wheels. Capt. D. Galton, *liii.* 42.

Experiments on the resistance of rolling stock (in America). C. Paine and A. M. Wellington, *lvii.* 342.

Formula for the atmospheric resistance of trains. T. Hawksley, *v.* 427.

Friction of oil axleboxes in railway carriages. E. A. Cowper, *xxviii.* 406; *xlvi.* 123; *liii.* 73.

Frictional resistance on railways. J. Hawkshaw, *xviii.* 68.

“Impedimental friction between wheel tires and rails, with plans for improvement.” W. B. Adams, *xxiii.* 411. (1 plate.)—Discussion: see J. Cross's Paper on incline locomotives (*Locomotives, for steep inclines*).



Railways, resistances on—*continued*.

Investigation of resistance on curves. F. Gamillschegg, lii. 319.

Journal friction at low speeds, by A. S. Kimball, liii. 371.

"Observations on the resistances to railway trains at different velocities."

D. Gooch, vii. 292, 309.—Discussion: J. S. Russell, vii. 294, 305, 318, 322, 326; W. Harding, 295, 308, 322, 326; I. K. Brunel, 299, 306, 308, 313, 318; G. P. Bidder, 302, 307, 308, 312, 321; J. Locke, 305, 306, 309, 317, 320; D. Gooch, 306, 309, 318; R. Stephenson, 314, 320, 324, 325; Capt. W. S. Moorsom, 317; T. R. Crampton, 320; C. Fox, 320; F. Braithwaite, 324; J. Hawkshaw, 325, 326; J. Thomson, 325.

Railway brake applied as a dynamometer: resistance of carriages. W. Fairbairn, xix. 501; T. Hawksley, 521.

Resistances of American cars on Erie Railroad. G. W. Hemans, xxviii. 385; T. E. Harrison, 398; W. Atkinson, 404; E. A. Cowper, 406, 409; J. J. Birckel, 481.

— of a train on the London and South Western railway. F. J. Bramwell, xxxi. 388.

(— of a train on the Lake Shore and Michigan railway.) Railway resistance. P. H. Dudley and W. P. Shiner, xli. 285.

— due to curves; W. Naylor, xxvi. 348; G. H. Phipps, 357, 380; F. J. Bramwell, 358; W. I. Ellis, 375; R. P. Brereton, 378; J. Clark, 385; Capt. H. W. Tyler, 390, 380;—W. Atkinson, xxviii. 267. Caledonian railway: D. K. Clark, xviii. 65. South Devon railway: Capt. W. S. Moorsom, xviii. 67. Santiago and Valparaíso railway: W. Lloyd, xxiii. 389; G. H. Phipps, 401; C. B. Vignoles, 402; Z. Colburn, 403.

— on curves, Mr. Latrobe's experiments: T. S. Isaac, xviii. 59. Table by Mr. Latrobe: W. Conybeare, xxvi. 338.

— Experiments on the Queensland railway. C. D. Fox, xxxi. 378; F. J. Bramwell, 389; J. Clark, 393; W. Atkinson, 398; A. H. Macnair, 463.

— narrow-gauge *versus* broad-gauge. W. Atkinson, lvi. 78.

— on inclines. W. Harding, x. 250, 255.

— of goods wagons. N. Beardmore, ii. (1843), 119.

— of railway trains. J. S. Russell, v. 284; G. Berkley, 288; M. Ricardo, 297.

— "Resistances to railway trains at different velocities." W. Harding, v. 369. (2 plates).—Discussion: W. Harding, v. 411, 415, 417, 420, 424, 430, 432; J. S. Russell, 411, 421; E. Woods, 413; J. D'A. Samuda, 414, 423, 427, 431; Sir J. Rennie, 415, 432; G. P. Bidder, 417, 421, 425, 429; R. Stephenson, 418, 420, 422, 426, 429, 432; G. Rennie, 419; S. C. Homersham, 422; F. Braithwaite, 422, 427; T. Hawksley, 427; T. R. Crampton, 428, 430.

— of carriages by E. Woods. J. Purkes, (T.) iii. 113;—E. Woods, xxxi. 404.

— of railway trains at different speeds. P. Barlow, (T.) iii. 187.

— on railways. J. Parkes, i. (1840), 9.

Rope-traction on the Blackwall railway. J. Field, ii. (1843), 70.

Rules for resistance due to curvature. W. Lloyd, xxiii. 391.

"Statement of observations made during the running of the ordinary trains on the inclined planes of the Waterford and Kilkenny railway, between the months of August 1848 and January 1849." Capt. W. S. Moorsom, viii. 287.

Railways, resistances on—*continued*.

"Train resistance on railways." W. B. Adams, xxxi. 358. (1 plate.)—Discussion: C. D. Fox, xxxi. 378; J. A. Longridge, 383, 392; W. Naylor, 385; F. J. Bramwell, 388; G. H. Phipps, 391; J. B. Fell, 392; J. Clark, 393; G. J. Morrison, 394; W. Atkinson, 397; G. R. Stephenson, 399; J. Brunlees, 402; A. H. Macnair, 403; E. Woods, 404; C. B. Vignoles, 407; W. B. Adams, 407.

See *Railways*, atmospheric; *Railways*, brakes; *Railways*, motive power on.

#### RAILWAYS—ROLLING STOCK—GENERAL REFERENCES:—

"American locomotives and rolling stock." Z. Colburn, xxviii. 360.—Discussion: see *Locomotive stock*.

—Bogies in America. Z. Colburn, xxviii. 361, 380, 427; W. B. Adams, 386; R. P. Breton, 396; W. Atkinson, 405; Capt. H. W. Tyler, 411; W. Lloyd, 422; J. J. Birckel, 430;—C. D. Fox and F. Fox, xxxix. 68; C. D. Fox, 117.

Buffer and couplings, central. C. D. Fox, xxxi. 381; J. A. Longridge, 385.

Cost for repair and renewal, carriages and wagons: R. Price Williams, xxx. 154. Depreciation: F. J. Bramwell, xxx. 202.

Double-hook couplings for rolling stock. A. Agthe, lv. 393.

Effect of rigidity and unevenness of the way on the durability of rolling stock. T. J. Woodhouse, xx. 277; W. H. Barlow, 282; R. Bruff, 283.

Gauge of, or play of carriages and wagons, relatively to the gauge of the way. H. Carr, xvi. 294.

Interchangeable parts and reserve couplings for railway drawgear. C. Steinhaus, lii. 328.

Investigation into the influence of gradients and curves on the rolling stock of railways. G. Mengel, xvii. 333.

"Maintenance of railway rolling stock." E. Fletcher, xxiv. 459.—Discussion: T. E. Harrison, xxiv. 491, 497, 509; J. Hawkshaw, 495; W. A. Adams, 496; J. Gibson, 499; G. P. Bidder, 501.

"—on the Cologne-Minden and other Prussian railways." T. A. Rochussen, xxv. 430, 457.—Discussion: T. A. Rochussen, xxv. 447, 457; G. P. Bidder, 449; F. J. Bramwell, 451; G. H. Phipps, 456; C. H. Gregory, 456.

"—and renewal of railway rolling stock." R. Price Williams, xxx. 136. (5 plates.)—Discussion: R. Price Williams, xxx. 192, 206; C. B. Vignoles, 194, 204, 213; J. T. Harrison, 194; D. K. Clark, 197; W. Adams, 200; W. Martley, 201; F. J. Bramwell, 202; T. E. Harrison, 203; G. H. Phipps, 205; R. C. Rapier, 205; C. H. Gregory, 206; J. T. Woodhouse, 206; S. W. Johnson, 213.

Relation between rolling stock and traffic on the six principal railways of France. M. Baude, xlix. 309.

Rolling stock of the Swedish railways. W. Stanley, xlv. 144.

—of narrow-gauge railways in Canada. E. Wragge, xlviii. 253.

—metre gauge: Rajpootana State railway. H. Bell, l. 150.

—South Australian railways. R. C. Patterson, lvi. 27, 39.

Side springs. W. R. Browne, xlv. 93; W. A. Adams, 107.

Spiral bearing springs. American railways. Capt. D. Galton, liii. 44.

Springs, railway, elasticity of. E. Belleruche, xli. 287.

**Railways—rolling stock—general references—continued.**

Table of cost for repairs, carriages and wagons, on twenty English railways. D. Drummond, *xlvi*. 66.

Technical report of the German Railway Union. W. R. Browne, *lvii*. 216, 223.

Uniformity of carriage and wagon stock. J. Brunlees, *xxi*. 354; J. Hawkshaw, 423.

Volute springs, construction and action of. S. C. Kreeft, *xv*. 37; D. K. Clark, 39; B. W. Croker, 42; C. Manby, 43.

See *Locomotive Stock Railway*; Receipts and Expenditure.

**RAILWAYS—SIGNALS:—**

Application of electric telegraph to semaphores. J. L. Clark, *xi*. 378.

Audible and fog signals: R. C. Rapier, *xxxviii*. 156, 190, 243; C. H. Gregory, 204; R. Burn, 209; C. E. Spagnoletti, 214; E. A. Cowper, 237; J. G. Pickering, 242; T. E. Harrison, 246.

Block system of signalling: R. C. Rapier, *xxxviii*. 143, 183, 214, 243; J. J. Allport, 218; G. Findlay, 219; F. Fox (Bristol), 224; W. H. Preece, 227; R. Johnson, 230; W. H. Barlow, 230; R. Price Williams, 233; E. A. Cowper, 237; H. Oakley, 240;—G. Findlay, *xli*. 36, 78; Sir J. Hawkshaw, 49; Col. Martindale, 59; J. J. Allport, 66; C. E. Parker Rhodes, 75.

— and apparatus for working it.—M. Sartiaux, *lii*. 333.

“Description of a self-acting signal for railways.” C. B. Curtis, *ii*. (1842), 186.

Distant signals: Col. Yolland, *xxi*. 401;—R. C. Rapier, *xxxviii*. 152; W. H. Preece, 227.

Early signals. R. C. Rapier, *xxxviii*. 144.

Electro-semaphore block-signals. MM. Lartigue, Tesse, and Prudhomme, *i*. 315;—M. Sartiaux, *lii*. 335.

“Fixed signals of railways.” R. C. Rapier, *xxxviii*. 142. (6 plates).—Discussion: R. C. Rapier, *xxxviii*. 190, 242; J. S. Farmer, 194; J. Imray, 195; D. A. Carr, 196; A. R. Poole, 198; W. L. Owen, 201; C. H. Gregory, 204; J. Dixon, 208; R. Burn, 209; R. Johnson, 211, 230; C. E. Spagnoletti, 212; G. Rowe, 215; A. Chambers, 216; J. J. Allport, 218; G. Findlay, 219; F. Fox (Bristol), 223, 225; C. W. Siemens, 225; W. H. Preece, 226; W. H. Barlow, 230; R. Price Williams, 231; E. A. Cowper, 237; J. N. Douglass, 237; H. Oakley, 240; J. G. Picking, 242; T. E. Harrison, 245.

Interlocking apparatus: R. C. Rapier, *xxxviii*. 160, 166, 183, 244; J. S. Farmer, 194; J. Imray, 195; A. R. Poole, 199; W. L. Owen, 201; C. H. Gregory, 207; R. Johnson, 211; A. Rowe, 215; A. Chambers, 216; F. Fox (Bristol), 223, 225; C. W. Siemens, 225; R. Price Williams, 232, 236; E. A. Cowper, 237.

— and block system, cost of: R. C. Rapier, *xxxviii*. 186, 191. Maintenance and attendance, 187, 191.

Iron-bar signal for railway trains. O'Neill's, *xvii*. 539.

Maroons as signals for railways. E. A. Cowper, *i*. (1841), 116.—Discussion: C. H. Gregory, *i*. (1841), 116.

Night signals, metallic thermoscope for control of. M. E. Hardy, *xliii*. 434.

Permissive system. G. Findlay, *xli*. 36.

Signals. Signal lamps. J. N. Douglass, *xxxviii*. 237; R. C. Rapier, 243; T. E. Harrison, 247.

— Railway-train signals, London and North Western railway. G. Findlay, *xli*. 9.

**Railways—signals—continued.**

- Signals. Railway signal-men. R. C. Rapier, xxxviii. 185; G. Findlay, 219.  
 — Railway signal-whistle. R. Porteous, iv. 150.  
 — Self-acting signals. R. C. Rapier, xxxviii. 155. Gibson's self-acting signal, xvii. 51.  
 — Semaphore signals: R. C. Rapier, xxxviii. 148; C. H. Gregory, 204.  
 Self-acting *versus* hand-worked: J. Brunlees, xxi. 357.  
 — Train-signals: J. Brunlees, xxi. 359; Sir G. B. Airy, 383.  
 Steam whistles: Col. Yolland, xxi. 400; J. Brunlees, 419.  
 Switch indicator. R. C. Rapier, xxxviii. 154.

**RAILWAYS—STATIONS:—**

- "Arrangement and construction of railway stations." R. J. Hood, xvii. 449.  
 — Discussion: J. Locke, xvii. 482.  
 Carriage traverser worked by endless rope. P. Leonhardi, xlviii. 292.  
 Clocks. "On the construction and regulation of clocks for railway stations." B. L. Vulliamy, iv. 63.  
 "Design and arrangement of railway stations, repairing shops, engine sheds, &c." W. Humber, xxv. 263. (4 plates.)—Discussion: R. J. Hood, xxv. 277; C. W. Eborall, 277; J. S. Forbes, 278; T. E. Harrison, 280; C. B. Vignoles, 280; S. Clarke, 280, 288; G. Findlay, 283; J. J. Allport, 284, 286; J. S. Valentine, 286; R. P. Brereton, 286; G. Berkley, 287; W. Cawkwell, 289; J. Hawkshaw, 290.  
 Height of railway platforms. W. Humber, xxv. 266; J. S. Forbes, 279; T. E. Harrison, 280; C. B. Vignoles, 280; G. Findlay, 283; J. S. Valentine, 286; J. J. Allport, 286; R. P. Brereton, 287; G. Berkley, 287; W. Cawkwell, 289; J. Hawkshaw, 290.  
 Particulars of roofs of large terminal stations: table. W. H. Barlow, xxx. 86. Table of cost, 89.  
 Roofed areas of railway termini, table of. W. H. Barlow, xxx. 83.  
 Separate goods yards. R. C. Rapier, xxxviii. 183.

Berlin-Anhalt railway, new terminus of the, lvii. 334.

Bremen railway station, locomotive turntable at. H. Bucking, liii. 339.

Bristol terminus of the Great Western railway. "Description of the hydraulic traversing frame at the." A. J. Dodson, iii. 128.—Discussion: A. J. Dodson, iii. 129; I. K. Brunel, 129.

Bristol and Exeter railway. "Description of a turntable, 42 feet in diameter, in use on the." J. J. Macdonnell, x. 245.

Camden. "Description of the Camden station of the London and North Western railway." R. B. Dockray, viii. 164.—Discussion: Dr. Buckland, viii. 173, 177; Prof. Graham, 174; Dr. Ure, 175, 176; T. Clark, 176; R. B. Dockray, 176, 177; H. Maudslay, 176; J. Donkin, 176; G. P. Bidder, 176; Capt. Moorsom, 177, 179; W. Harding, 177, 180; F. Braithwaite, 178, 185; J. E. McConnell, 178; C. May, 179, 184, 185; W. Maugham, 181, 184; R. Stephenson, 182; I. K. Brunel, 183; T. Wicksteed, 184; T. Hawksley, 184; S. C. Homersham, 184; J. S. Russell, 185; Mr. Paten, 185; R. Davison, 185.

Cannon Street. "The City terminus extension of the Charing Cross railway." J. W. Barry, xxvii. 410. (3 plates.)

German Railway Union. Report of the railway workshops. W. R. Browne, lvii. 227.

**Railways—stations—continued.**

Greenore, Carlingford Lough: Marine station, Dundalk and Greenore railway. "Carlingford Lough and Greenore." J. Barton, xliv. 181, (3 plates.)—Discussion: W. A. Brooks, xliv. 143; Dr. W. Pole, 143; J. Grant, 143; J. B. Redman, 143; G. R. Redgrave, 144; Sir J. Hawkshaw, 145; Capt. Calver, 147; J. Barton, 147; G. R. Stephenson, 148; W. D. Cay, 148; P. J. Messent, 149.

Hanoverian States railway at Leinhausen, works of. Hr. Schwering, lviii. 373.

Lyttelton terminus, Canterbury, New Zealand. E. Dobson, xxix. plate 2.

Paddington station, Great Western railway, hydraulic machinery for the service of the. H. Robinson, xlix. 8, 12.

Philadelphia and Reading railway, coal depot on the. H. Blanck, li. 309.

Recife and São Francisco railway, workshops. W. M. Peniston, xxii. 397.

St. Pancras. "Description of the St. Pancras station and roof, Midland railway." W. H. Barlow, xxx. 78. (2 plates.)—Discussion: J. J. Allport, xxx. 94, 99; Col. Rich, 95; J. W. Barry, 95; G. H. Phipps, 97; C. Markham, 98; J. M. Heppel, 99; J. W. Grover, 100; E. A. Cowper, 102; W. H. Barlow, 104; C. B. Vignoles, 105.

Shoreditch. "Description of the iron shed at the London terminus of the Eastern Counties railway." W. Evill, Jun., iii. 288.

United States, roller-pivots for turntables in the. Z. Colburn, xxii. 551.

Zigzaghill, Prague, pumping water-supply by locomotive engines, at, xxxix. 324.

See *Roofs*.

**RAILWAYS—STATISTICS:—**

Advantage of uniformity of returns of railways. C. B. Vignoles, xx. 28; T. E. Harrison, 31;—C. B. Vignoles, xxv. 395.

Financial statistics of European railways, from 1855 to 1873. Dr. G. Stürmer, xxxix. 356.

How railway statistics should be treated. J. A. Baynes, xli. 45.

"Railway statistics." J. T. Harrison, xli. 27. (1 plate.)—Discussion on this and G. Findlay's Paper on the working of railways, and W. Cudworth's Paper on sorting railway trains: G. Findlay, xli. 34, 77; H. Footner, 38; R. C. Rapier, 40; F. W. Webb, 43; J. A. Baynes, 45; Sir J. Hawkshaw, 48; R. Price Williams, 50; Lieut.-Col. B. H. Martindale, R.E., 59; J. J. Allport, 69; J. Dixon, 68; F. J. Bramwell, 69; J. W. Grover, 72; W. H. Barlow, 73; J. W. Barry, 74; F. Fox (Bristol), 74; T. Ormiston, 75; H. S. Ellis, 75; C. E. Parker-Rhodes, 75; W. Cudworth, 76; T. E. Harrison, 80.

Relation between rolling stock and traffic on the six principal railways of France. M. Baude, xlix. 309.

Statistical return of the Pennsylvania railroad: C. D. Fox and F. Fox, xxxix. 81 to 88, 90. Cost: G. Berkley, 114; C. D. Fox, 118.

"Statistics of railway income and expenditure, and their bearing on future railway policy and management." J. T. Harrison, xxix. 322. (3 plates.)—Discussion: W. H. Barlow, xxix. 336; R. Price Williams, 338; G. W. Hemans, 343; F. Hill, 345; G. W. Currie, 345, 355; J. Fowler, 347; E. Chadwick, C.B., 349; J. Hawkshaw, 352; F. S. Dutton, 353; J. Mitchell, 355; J. H. Lloyd, 358; T. E. Harrison, 364; Jos. Taylor, 366; J. T. Harrison, 367; C. B. Vignoles, 371.

## RAILWAYS—SYSTEMS :—

- Great Britain. Address of the President, R. Stephenson, xv. 123.  
 France. Address of the President, Joseph Locke, xvii. 128. (1 plate.)  
 — Financial relations between the State and the six principal railway companies in France. M. de Labry, xliii. 339.  
 — Operation of the French system. C. E. Parker-Rhodes, xli. 75.  
 Germany. "The railway system of Germany." R. Crawford, xxii. 2.—  
 Discussion: C. B. Vignoles, xxii. 27; T. E. Harrison, 30; Capt. Moorsom, 33; J. S. Russell, 35; R. Mallet, 37, 43; F. W. Sheilda, 40; C. Curtis, 41; C. H. Gregory, 42; R. Crawford, 43.  
 India. System of railways. Maj.-Gen. G. B. Tremenhoe, xvii. 506, 514, 537; H. Conybeare, 514; G. Sibley, 527; J. Hawkshaw, 528; G. B. Bruce, 529; A. Henderson, 532;—J. J. Berkley, xix. 586;—W. P. Andrew, xxii. 481. Railway policy in India: G. P. Bidder, xxii. 489. Construction of the railways in India by the Companies: J. Hawkshaw, xxiv. 196. Policy of economy in constructing railways of the metre-gauge: W. T. Thornton, C.B., xxxv. 214.  
 Ireland. "On the railway system in Ireland, the Government aid afforded, and the nature and results of county guarantees." G. W. Hemans, xviii. 24.—Discussion: L. Gisborne, xviii. 40; Sir C. P. Roney, 41; T. Webster, 41; P. W. Barlow, 42; C. May, 43; J. Hawkshaw, 43; G. P. Bidder, 44; J. Brunlees, 46; C. Curtis, 47; G. W. Hemans, 47; J. Locke, 48.  
 Semmering railway. R. Crawford, xxii. 9, 12; C. B. Vignoles, 29. Cost of working on the Semmering incline. A. Gottschalk, liv. 316.  
 Sweden, railway system. C. P. Sandberg, xxxv. 337, 520; xxxix. 192.

## RAILWAYS—TELEGRAPHS :—

- Aix-la-Chapelle railway, electro-magnetic signal-telegraphs, constructed for the. Prof. Wheatstone, ii. (1843), 181.  
 Bartholomew's system on the London, Brighton, and South Coast railway. W. H. Preece, xxii. 177; E. G. Bartholomew, 219.  
 Chance of mistake in telegraphing. Captain Huish, xxii. 213.  
 Clark's (E.) system on the London and North Western railway. W. H. Preece, xxii. 173, 185; Capt. Huish, 214; F. Jenkin, 216; F. J. Bramwell, 229; G. W. Newman, 230.  
 — system *versus* W. H. Preece's system. W. H. Preece, xxii. 185, 236.  
 Conditions for working railway telegraphs. W. H. Preece, xxii. 185.  
 Cooke's system; block system. W. H. Preece, xxii. 170, 232; C. W. Eborall, 210; A. Scott, 211; G. Hawkins, 212; E. G. Bartholomew, 219; R. S. Culley, 222.  
 Employment of railway telegraphs: J. Brunlees, xxi. 358. Germany: C. W. Siemens, 384. Engine telegraph: J. Brunlees, xxi. 358.  
 German system: W. H. Preece, xxii. 180; E. A. Cowper, 226.  
 — Report of the German Railway Union on railway signals. W. R. Browne, lvii. 230.  
 Great Northern railway system. W. H. Preece, xxii. 175.  
 Highton's system. W. H. Preece, xxii. 180.  
 Influence of earth currents. W. H. Preece, xxii. 235.  
 Needle. Single-needle instrument. W. H. Preece, xxii. 172.  
 — Double-needle instrument. W. H. Preece, xxii. 173.

**Railways—telegraphs—continued.**

Permanent visible signal at tunnels, in addition to the telegraph. R. S. Culley, xxii. 221; W. H. Preece, 234.

Preece's (W. H.) system (semaphore electric telegraph) on the London and South Western railway. W. H. Preece, xxii. 181, 195, 233, 237; E. Tyer, 197; C. V. Walker, 208; F. Jenkin, 217; E. G. Bartholomew, 218; R. S. Culley, 223.

"Railway telegraphs, and the application of electricity to the signalling and working of trains." W. H. Preece, xxii. 167.—Discussion: W. H. Preece, xxii. 193, 232; E. Tyer, 196; C. V. Walker, 208; C. W. Eborall, 210, 212; A. Scott, 211; G. Hawkins, 212; Capt. Huish, 213; F. Jenkin, 215; E. G. Bartholomew, 218; R. S. Culley, 221; G. W. Hemans, 224; Capt. H. W. Tyler, R.E., 225; E. A. Cowper, 226; C. C. Adley, 227; T. M. Johnson, 228; F. J. Bramwell, 229; G. W. Newman, 230; A. Jenoure, 230; J. Hawkshaw, 238.

Regnault's system of railway signals. M. Sartiaux, lii. 335.

— Western railway of France. W. H. Preece, xxii. 179.

Scinde railway. J. Brunton, xxii. 467.

Siemens' and Halske's system of railway signals. M. Sartiaux, lii. 335.

Signalling of trains, by Carl Siemens. R. Mallet, xxii. 39.

Spagnoletti's instrument, Metropolitan railway. W. H. Preece, xxii. 180; T. M. Johnson, 228.

Time-intervals *versus* space-intervals. W. H. Preece, xxii. 194.

Tyer's disc electric telegraph. E. Tyer, xxii. 197;—M. Sartiaux, lii. 334.

— system, on the South Eastern railway, &c.: W. H. Preece, xxii. 177, 185, 234; E. Tyer, 196, 198; C. V. Walker, 208; C. W. Eborall, 210; F. Jenkin, 215.

Voltaic signals *versus* magnetic signals. E. G. Bartholomew, xxii. 220.

Walker's (C. V.) rheo-electro static telegraph, South Eastern railway. W. H. Preece, xxii. 179; C. V. Walker, 203; C. W. Eborall, 210; Capt. Huish, 213; F. Jenkin, 218; R. S. Culley, 222.

Working of single lines: W. H. Preece, xxii. 187, 190, 232; Capt. Huish, 214; C. C. Adley, 227. "Train staff" system: W. H. Preece, 187; Capt. Huish, 214; G. W. Hemans, 224; Capt. Tyler, R.E., 225. System on the London and South-Western railway, 188.

**RAILWAYS—TRAFFIC:—**

Circulation of traffic. J. T. Harrison, xli. 27.

First- and third-class passenger traffic. J. T. Harrison, xli. 30; G. Findlay, 37; R. C. Rapier, 40; J. A. Baynes, 48; R. Price Williams, 52; Col. Martindale, 60; J. J. Allport, 62; T. E. Harrison, 80.

Rate of increase of railway traffic. R. Price Williams, xxxviii. 233. Growth of railway traffic: J. A. Baynes, xli. 47; R. Price Williams, 50, 52.

Ready-reckoner for traffic. J. L. Haddan, lvi. 62.

Camden goods station, cost of working the. Capt. Moorsom, viii. 177, 179; R. B. Dockray, 177; W. Harding, 177, 180.

German Railway Union. Report of the working of railway traffic. W. R. Browne, lvii. 228.

Indian railways, traffic of. R. Price Williams, xxxv. 350; A. M. Rendel, 364; G. Berkley, 388.

**Railways—traffic—continued.**

- Indian railways. Goods traffic on the Bombay, Baroda, and Central India railway. Lieut.-Col. J. P. Kennedy, xxxv. 529.
- Goods, bulk of, conveyed on the Bombay, Baroda, and Central India railway. Lieut.-Col. J. P. Kennedy, xxxv. 532.
- Rajpootana (State) railway. Table of capacities of carrying stock, and weight carried. H. Bell, l. 156.
- Japan. Traffic of Japanese railways. W. F. Potter, lvi. 13, 23.
- Prussia, traffic of railways in. T. A. Rochussen, tables, xxv. 441, 448.
- United Kingdom, railways of the. R. Price Williams, xxxv. 352, 353.
- Miles maintained, receipts, and tonnage, on nine English railways, 1864-74, with table. R. Price Williams, xlv. 148, 169.
- Number and weight of trains on Great Northern railway, 1856-65; table, R. Price Williams, xxv. 372.
- Tables of number and gross weight of trains passing over the Great Northern railway between Barnet and Potter's Bar, 1865-75. R. Price Williams, xlv. 189, 190.
- London and North Western railway: G. Findlay, xli. 4, 5, 7. Goods traffic, 12, 15, 41. Weight of traffic: G. Findlay, 5, 35, 44.
- Number and weight of trains on the Lancashire and Yorkshire railway, 1858-65, with table. R. Price Williams, xxv. 372.

**RAILWAYS—VIADUCTS. See Viaducts.****RAILWAYS—WAGONS:**

- Chains, on the resistance offered by straight linked, to a sudden shock. H. Resal, xli. 290.
- Coal wagons, most suitable capacity of. T. E. Harrison, xviii. 502;—J. J. Allport, xxiv. 385.
- Chaldron coal wagons, North Eastern railway; their maintenance and renewal. E. Fletcher, xxiv. 460, 461; table, 490; T. E. Harrison, 494.
- Midland Wagon Company. W. A. Adams, xxiv. 498.
- Cost of repair of wagons. W. A. Adams, xlv. 137.
- Design (general) of wagons. W. R. Browne, xlv. 81; C. H. Gregory, 135.
- German railways, wagon stock of. R. Crawford, xxii. 25.
- Hungarian railways, wagons. P. Bruff, xxiv. 373.
- Wagons for narrow gauge, Rostoken-Marksdorf railway. P. Klunzinger, xlv. 248.
- Iron wagons. E. Benedict, xlv. 114; J. W. Emmett, 133.
- Life of railway wagons: E. Fletcher, xxiv. 460; T. E. Harrison, 494. Ages of wagon stock on the North Eastern railway: E. Fletcher, 461; tables, 469-482, 487, 488.—T. G. Clayton, xlv. 118; W. A. Adams, 137; Major T. F. Dowden, 139.
- London and North Western railway, wagon stock of the. G. Findlay, xlv. 129.
- Maintenance and renewal of railway wagons: E. Fletcher, xxiv. 461; tables, 469-482; W. A. Adams, 496; G. P. Bidder, 508; T. E. Harrison, 511.
- of coal wagons: E. Fletcher, tables, xxiv. 476, 477, 487, 488; W. A. Adams, 496; T. E. Harrison, 510.
- Mineral wagons, Bilbao Iron Ore Company. F. C. Barron, li. 250.



Railways—wagons—*continued*.

- Norway, wagons of the narrow-gauge railways: C. D. Fox, xxvi. 51; Queensland railways, 54.
- Pernambuco railway wagons. G. O. Mann, xxiv. 11.
- Port Augusta and Port Darwin railway wagons. S. C. Patterson, lvi. 40.
- Prussia, weight and cost of wagon stock in. T. A. Rochussen, xxv.; table 439.
- Repairs and renewal of wagon stock: railways in, tables; T. A. Rochussen, xxv. 440, 442.
- Recife and São Francisco railway wagons. W. M. Peniston, xxii. 40.
- Refrigerator car, American railroads. Capt. D. Galton, liii. 33; G. Findlay, 82.
- Snow plough, American. C. D. Fox and F. Fox, xxxix. 79; C. D. Fox, 90.
- New snow-plough for the Zealand railways. O. Busse, lvi. 322.
- Weights, (table of) capacities, and bearing powers of wagons. G. Berkley, xlv. 108–113; G. B. Bruce, 121.
- Dead weight of wagons *versus* paying weight. W. R. Browne, xlv. 98; W. A. Adams, 100, 106, 137; J. W. Grover, 114; C. D. Fox, 115; T. G. Clayton, 117; G. B. Bruce, 119; G. Findlay, 129, 131; J. W. Emmett, 133; Major T. F. Dowden, 138, 141; W. Stanley, 145.
- “Railway rolling stock capacity, in relation to the dead weight of the vehicles.” W. A. Adams, xlv. 100. (2 plates.)—Discussion on the two preceding Papers: W. A. Adams, xlv. 106, 137; G. Berkley, 108; E. Benedict, 114; J. W. Grover, 114; C. D. Fox, 115; T. G. Clayton, 117; G. B. Bruce, 119; E. A. Cowper, 123; W. R. Browne, 123, 137; J. W. Barry, 125; G. Findlay, 128; J. W. Emmett, 132; J. J. Allport, 134; J. A. Longridge, 135; C. H. Gregory, 135; Major T. F. Dowden, R.E., 138; W. Stanley, 143.
- “Construction of railway wagons, with special reference to economy in dead weight.” W. R. Browne, xlv. 81. (1 plate.)

## RAILWAYS—WHEELS AND AXLES:—

- Cast-iron wheels with steel tires. Capt. D. Galton, liii. 40.
- *versus* steel wheels. T. A. Rochussen, liii. 85.
- Chilled cast-iron wheels, manufacture of, by Messrs. Lobdell. Capt. D. Galton, liii. 36; by the Cayuta Wheel Foundry Company, 37.
- composition of. W. R. Browne, liii. 74; I. L. Bell, 76, 79.
- Mileage of. Capt. D. Galton, liii. 39.
- reason of their durability. W. W. Beaumont, xlvii. 58.
- Strength of cast iron for. Capt. D. Galton, liii. 37, 38.
- *versus* English wheels. T. G. Clayton, liii. 85.
- Conical form of wheels. J. Walker, i. (1840), 49.—W. B. Adams, xxiii. 412; C. H. Gregory, 428; J. Hawkshaw, 437.
- *versus* cylindrical wheels. J. A. Longridge, xxvii. 381.—C. D. Fox, xxxi. 381; J. A. Longridge, 384; W. Naylor, 388; J. Clark, 393; G. R. Stephenson, 401.—R. Price Williams, xxxii. 211; xxxvii. 38.
- Diameter of carriage wheels. Sir C. Fox, xxviii. 417.
- Disc wheels *versus* spoke wheels. F. J. Bramwell, xxv. 451, 454; G. H. Phipps, 456; C. H. Gregory, 456.
- in Prussia. T. A. Rochussen, xxv. 432, 433; F. J. Bramwell, 451; G. H. Phipps, 456.
- Corrugated: T. A. Rochussen, xlvii. 63.
- American, of chilled cast-iron. C. H. Gregory, xxv. 457; T. A.

**Railways—wheels and axles—continued.**

Rochussen, 457; Z. Colburn, xxviii. 372, 428; G. Berkley, 393; W. B. Lewis, 396; T. E. Harrison, 400; P. R. Hodge, 402; Capt. H. W. Tyler, 413; O. Younghusband, 434;—C. D. Fox and F. Fox, xxxix. 68, 90, 120; Dr. C. W. Siemens, 100; G. H. Phipps, 109; J. Fernie, 110; E. A. Cowper, 115;—Capt. D. Galton, liii. 85, 64; W. Atkinson, 78. Canadian railways: C. D. Fox, 69. In England: Jos. Taylor, 71; I. L. Bell, 77; T. Ashbury, 79.

Paper car-wheels: Capt. Galton, xlvii. 62; liii. 40.

Principles of action of wheels and axles. W. B. Adams, xxiii. 411.

Proportions of wheels and axles. W. R. Browne, xlv. 87; T. G. Clayton, 117; E. A. Cowper, 123; J. W. Emmett, 182.

Wood wheels *versus* chilled cast-iron wheels. W. R. Browne, xlv. 91; C. H. Gregory, 136.

— safety of, Mansell's. W. W. Beaumont, xlvii. 50.

**RAILWAYS—WHEEL-TIRES:—**

Adams' spring tires and their performance on the rolling stock, Queensland railways. C. D. Fox, xxvi. 54-56; W. B. Adams, 76. See *Locomotives*.

Breakage of tires. J. Brunlees, xxi. 352; Col. Yolland, 398, 413.

— on Moscow-Nishni railway during the winter of 1871-72. xxxix. 351.

Compound iron and steel tires. F. J. Bramwell, xxv. 452.

Concentrated pressure on railway wheels. J. W. Barry, xlvii. 66.

Fastenings of railway tires. J. Brunlees, xxi. 353.

Fixing of railway tires. W. Clauss, xliii. 347.

"Fracture of railway tires." W. W. Beaumont, xlvii. 43.—Discussion:

Dr. J. Percy, xlvii. 61; Sir J. Hawkshaw, 61; Capt. D. Galton, 62;

T. A. Rochussen, 62; Dr. W. Pole, 63; E. Riley, 63; J. Baker, 64;

J. I. Thornycroft, 65; W. E. Rich, 65; J. W. Barry, 66; J. Cochrane, 66;

L. H. Shirley, 67; W. W. Beaumont, 67; G. R. Stephenson, 68.

— of wheel tires in frosty weather. L. H. Shirley, xlvii. 67; W. W. Beaumont, 68.

Kaselowsky's improved method of fastening tires. H. Gust, lii. 330.

Krupp's steel tires, manufacture of. C. W. Siemens, xxi. 383.

Loose wheels and axles. C. D. Fox, xxvi. 61, 79; P. R. Hodge, 70; W. B.

Adams, 76;—C. D. Fox, xxxi. 381; J. A. Longridge, 383; W. Naylor,

385; F. J. Bramwell, 388; J. B. Fell, 392; J. Clark, 393; G. J.

Morrison, 396; G. R. Stephenson, 399; J. Brunlees, 402; W. B. Adams,

407. On American railways: Capt. D. Galton, liii. 41. Mont Cenis

railway: J. A. Longridge, liii. 72.

— and hollow axles (Dessart's) for mining wagons. J. Libert, lv. 398.

"Machine for bending and setting the tire of railway carriage wheels."

J. Woods, i. (1841), 99.

Mileage of iron and steel tires, Midland railway. W. Kirtley, xlviii. 64.

— of cast steel tires, Great Southern and Western railway: A. McDonnell, xlviii. 10, 11. Thickness, 68.

— and cost of cast-steel tires, Philadelphia and Reading railroad. A. McDonnell, xlviii. 19.

Shrinking-on of wheel-tires by means of hot water. O. Schubert, xlix. 310.

Wear (comparative) of iron and steel wheel tires, St. Helen's railway. W. B. Adams, xxiii. 417.

**Railways—wheel-tires—continued.**

- Wear of carriage steel tires and wagon steel tires, Cologne-Minden railway, Table. T. A. Rochussen, xxv. 444, 449; C. H. Gregory, 456.  
 — of steel tires, São Paulo railway, xxx. 52.  
 — Duration of tires of carriage wheels. T. E. Harrison, xxviii. 400.

**RAINFALL:—**

- Influence of forests on rainfall. Sir W. Denison, xxvii. 255.  
 — of land drainage and cultivation on rainfall. R. Rawlinson, C.B., xlv. 62; W. Topley, 90.  
 — of the spots on the sun on rainfall. A. R. Binnie, xxxix. 19, 28, 30, 31; Sir. G. B. Airy, 38; G. Dines, 43; Lieut-Col. A. Strange, 46; H. F. Blanford, 61.  
 Laws of rainfall, and its utilisation. T. Hawksley, xxxi. 53; N. Beardmore, 60.  
 Rainfall in cycles. R. Rawlinson, C.B., xlv. 63; G. J. Symons, 91; C. Greaves, 93; Prof. D. T. Ansted, 97.  
 — in mountainous districts. J. F. Bateman, lii. 21.  
 Tables of mean annual rainfall in various parts of the world. A. R. Binnie, xxxix. 27-31.  
 Variation of rainfall with the elevation: S. C. Homersham, vii. 276, 280, 282, 284; J. Murray, 277; J. F. Bateman, 277; W. Pole, 281; Sir C. Malcolm, 282; T. Hawksley, 283; N. Beardmore, 285. Mr. Hawksley's formula: J. Murray, xx. 324.  
 Aberdeen, 1833-59. J. Murray, xx. 324;—J. Glaisher, xxxi. 50.  
 Algiers. G. Higgin, xxvii. 485;—L. Pochet, xli. 248;—G. Wilson, li. 214, 215.  
 Arbroath, 1855-57. J. Murray, xx. 324.  
 Australia. Prof. D. T. Ansted, lvi. 163.  
 — South. R. C. Patterson, lvi. 34.  
 Bavaria. M. Ebermeyer, xlv. 53, 57, 58.  
 Belfast and Carrickfergus. R. Manning, xxv. 459; tables, 460, 467, 470, 471, 477; J. F. Bateman, 473; N. Beardmore, 457.  
 Brazil, G. O. Mann, xxiv. 1.  
 Carrickfergus. "Results of a series of observations on the flow of water off the ground, in the Woodburn district, Ireland; with rain gauge registries in the same locality, for a period of twelve months, ending 30th June, 1865." R. Manning, xxv. 458, 477. For discussion, see *Rainfall*: flow off the ground.  
 Ceylon. H. Byrne, lvii. 233.  
 Clyde, valley of the. J. F. Bateman, xxxix. 33.  
 Corsica. D. T. Ansted, xxviii. 303.  
 Croydon and the Denbies. G. J. Symons, xlvii. 150.  
 Cumberland. R. Rawlinson, xxi. 98.  
 Elgin. 1855-57. J. Murray, xx. 324.  
 Eling. J. B. Denton, xxi. 127.  
 England, variations of rainfall in. R. Rawlinson, xviii. 394; T. R. Crampton, 396; T. Hawksley, 397, 398;—G. J. Symons, xlv. 2.  
 — Rainfall in. T. Hawksley, xviii. 386;—R. Rawlinson, xxiv. 317; G. J. Symons, xxvii. 258;—J. F. Bateman, xxxix. 32; G. Dines, 41.  
 — Rainfall in England and Scotland. R. Rawlinson, C.B., xlv. 62.

Rainfall—*continued*.

- Fen districts. J. Glynn, vii. 275; T. Hawksley, 283;—W. H. Wheeler, xxviii. 81.
- Ferrara. J. A. Longridge, xlvii. 147.
- Geelong. Prof. D. T. Ansted, lvi. 162.
- Greenwich: J. Simpson, xiii. 111. Ordinary rainfall, 113; table, 115; J. Glaisher, xxxi. 48, 50-52, 58, 61;—Sir G. B. Airy, xxxix. 39.
- Hemel Hempsted, Herts. Tables. J. Dickinson, ii. (1843), 160; ix. 158;—J. Evans, xx. 220; xlv. 209-212.
- Hinxworth, 1836-57. J. B. Denton, xxi. 51, 53, 56; tables, 66-82; T. Hawksley, 100.
- India: R. Rawlinson, xxiv. 317;—A. R. Binnie, xxxix. 17; R. Aitken, 43; H. F. Blanford, 60. Northern India: Col. W. H. Greathed, xxxv. 147, 163. Kurrachee: J. Brunton, xxii. 459. Between Kurrachee and Kotree, xxvii. 227, 250, 256. Scinde: J. Brunton, xxii. 496. Punjab: T. Login, xxvii. 508. Western Coast: J. J. Berkley, xix. 601. Western Ghats: Col. Sir W. Denison, xxvii. 515. Bombay: H. Conybeare, xvii. 557, 559; xviii. 389. Nerbuddah valley: xxvii. 219. Nágpur: A. R. Binnie, xxxix. 11, 22, 26, 34; G. J. Symons, 52; H. F. Blanford, 60. Calcutta: A. R. Binnie, xxxix. 56; H. F. Blanford, 59. Madras: B. M'Master, xviii. 421. Southern India: G. Gordon, xxxiii. 378; J. H. Latham, 402.
- Italy. G. Higgin, xxvii. 485;—G. Wilson, li. 214, 215.
- Kendal. J. Glynn, vii. 275.
- Kent and Surrey, North Downs. J. Lucas, xlvii. 85, 87.
- Lancashire. J. F. Bateman, vii. 275, 284; T. Hawksley, 275; S. C. Homersham, 276.
- Lea bridge. C. Greaves, xlv. 23; tables, 28 to 47.
- Liverpool, 1850-52; table. T. Duncan, xii. 497.
- Loire, at Orleans. Rainfall in the basin of the Loire since 1862. M. Deglaude, xlii. 275.
- London, rainfall in. J. Simpson, xiii. 113, 115;—J. W. Bazalgette, xxiv. 291; W. Haywood, 322, 323;—G. Dines, xxxix. 42;—W. Shelford, xlv. 151.
- London basin. P. W. Barlow, xiv. 47, 48; J. Dickinson, 51.
- Manhattan Island, New York. J. C. Curtis, xxii. 300.
- Marseilles district. G. Wilson, li. 213.
- Melbourne. M. B. Jackson, xviii. 369; tables, 382, 383.
- Midland district. W. H. Wheeler, xlv. 103.
- Montpellier. Prof. D. T. Ansted, xxviii. 304.
- Montreal, Canada. P. W. St. George, lviii. 293.
- Mourne Mountains, Ireland. J. F. Bateman, vii. 235, 266, 275.
- Paisley. A. Leslie, xxxi. 35.
- Pentland Hills, Edinburghshire. N. Beardmore, vii. 285.
- Pernambuco. W. M. Peniston, xxii. 389.
- Preston. J. Newton, xxii. 296.
- Rothamsted, Herts. Dr. J. H. Gilbert, xlv. 52, 56, 59, 60.
- Sandhurst, Victoria. J. Brady, lvi. 135. E. O. Moriarty, 150; Prof. Ansted, 162.
- Seine. Rainfall in the basin of the Seine. M. Belgrand, xxxix. 334.
- Sheffield. T. Hawksley, xxxi. 55.
- Southampton. J. B. Denton, xxi. 127.

**Rainfall—continued.**

- Spain. G. Higgin, xxvii. 484;—G. Wilson, li. 214, 215.  
 Staffordshire, South. A. Payne, xlv. 89.  
 Stuttgart. Dr. V. Haack, xlv. 316.  
 Sydney and Goulburn, New South Wales. W. Clark, lvi. 157; E. O. Moriarty, 160.  
 Thames watershed. Rev. J. C. Clutterbuck, xxii. 344, 347.  
 — valley rainfall, and in England. G. J. Symons, xlv. 15–18; Rev. J. C. Clutterbuck, 66; J. H. Taunton, 83; table, 84.  
 — drainage area. G. J. Symons, xlix. 146.  
 Wandle, watershed of the river: F. Braithwaite, xx. 207, 208. Rainfall in the Wandle valley: T. Hawksley, 214.  
 Wicklow, County. P. Neville, xxxviii. 9, 33–37; G. J. Symons, 45; R. Field, 48.  
 Worcester. E. L. Williams, xlv. 105.  
 Yorkshire chalk Wolds. J. R. Mortimer, lv. 254.

**RAINFALL. CONDENSATION :—**

- Condensation on the surface of the land and the water. C. Greaves, xlv. 27; G. Dines, 82; R. Field, 86.  
 — of the chalk and of water. E. Easton, xlvii. 137.

**RAINFALL—EVAPORATION :—**

- Charnock's experiments on the proportion of evaporation to rainfall from undrained and drained soils. J. B. Denton, xxi. 59; R. Field, 117.  
 Evaporation from the surface of the land. T. Hawksley, xxi. 101, 105; G. P. Bidder, 109;—R. Manning, xxv. 460; C. Greaves, 476; xlv. 23, 26; tables, 28–47;—Dr. J. H. Gilbert, table, xlv. 56;—J. A. Longridge, xlvii. 147.  
 — from peaty surface. J. B. Denton, xxi, 128.  
 — from the surface of water. F. Braithwaite, xix. 35; xxii. 364;—T. Hawksley, xx. 218;—J. B. Denton, xxi. 62. Bitter Lakes: J. Hawkshaw, xxvi. 453; J. Murray, 467. India: T. Hawksley, 471; C. Curtis, 472; Sir W. Denison, 475.—C. Greaves, xlv. 26; R. Field, 85.  
 — through plants. Dr. J. H. Gilbert, 54; table, 61.  
 “ — and percolation.” C. Greaves, xlv. 19.—Discussion on this Paper and G. J. Symons's Paper “On the floods in England and Wales” (*ante*): C. Greaves, xlv. 48, 92; J. Evans, 48; Dr. J. H. Gilbert, 52; R. Rawlinson, C.B., 62; Rev. J. C. Clutterbuck, 65; C. W. Merrifield, 68; S. C. Homersham, 69; B. Latham, 72; W. Shelford, 79; G. Dines, 81; J. H. Taunton, 82; R. Field, 85; A. Payne, 89; W. Topley, 90; G. J. Symons, 91; G. R. Stephenson, 94; Prof. D. T. Ansted, 95; T. Fenwick, 97; E. J. Lloyd, 97; Prof. J. Prestwich, 98; J. B. Redman, 100; J. Taylor, 101; W. H. Wheeler, 103; E. L. Williams, 105.  
 ‘Loss.’ R. Manning, xxv. 461. Woodburn district, Carrickfergus, 461 table, 462; 463; table, 467.  
 — by vegetation and evaporation. J. F. Bateman, lii. 32.  
 Proportion of evaporation. T. Hawksley, xviii. 385; C. Greaves, 391;—R. Rawlinson, 392; xx. 214, 218, 231;—J. B. Denton, xx. 230; G. P. Bidder, 256;—C. Greaves, xxxix. 46.  
 Relative evaporation from surfaces of land and water. J. B. Denton, xx. 230;—Rev. J. C. Clutterbuck, xxii. 353; F. Braithwaite, 364.

**Rainfall—Evaporation—continued.**

Greenock. Absorption and evaporation. J. F. Bateman, vii. 266; T. Hawksley, 282, 287.

India. Evaporation from the ground: A. Wilson, xxvii. 463;—Col. J. T. Smith, xxxiii. 406; G. Gordon, 424; A. A. West, 427. Bombay: H. Conybeare, xvii. 560, 571. Bombay Presidency: T. Ormiston, xxxix. 48. Nágpúr: A. R. Binnie, xxxix. 15, 26; R. Field, 37; S. C. Homersham, 49; G. J. Symons, 53. England: J. F. Bateman, xxxix. 34; Dr. Pole, 35; R. Field, 37. London: C. Greaves, 46.

Liverpool district, evaporation in the: T. Hawksley, xx. 215. Liverpool: T. Hawksley, 127.

London. Rainfall and evaporation. T. Hawksley, xix. 119.

— evaporation from the chalk in the neighbourhood of. T. Hawksley, xx. 214, 218. From chalk and other rocks. Prof. D. T. Ansted, xlvii. 117; E. Easton, 138; G. J. Symons, 150.

Madrid. Evaporation from the ground. G. Higgin, xxvii. 505.

Melbourne. Evaporation: M. B. Jackson, xviii. 369; tables, 382, 383; T. Hawksley, 386, 397.

— Evaporation. Ballarat, Yan-Yean reservoir, Melbourne, Geelong, M. B. Jackson, xviii. 384.

Nágpúr. Evaporation from Ambájarí reservoir: table, A. R. Binnie: xxxix. 26.

Ogdensburg, N.Y., evaporation from reservoirs at. J. H. Harlow, i. 231.

Sydney. Evaporation. E. O. Moriarty, lvi. 161.

Yorkshire. Evaporation on the Chalk Wolds. J. R. Mortimer, lv. 254.

**RAINFALL. FLOW OFF THE GROUND:—**

Estimation of flow off the ground. J. F. Bateman, xxv. 472; Mr. Beardmore, 474; S. C. Homersham, 475; C. Greaves, 476; M. Scott, 477; C. E. Cawley, 477;—J. F. Bateman, lii. 28.

Flow off. J. Glynn, vii. 275.

— Lancashire. J. F. Bateman, vii. 275; T. Hawksley, 275, 283.

— (collected) Mourne mountains. J. F. Bateman, vii. 275.

— Nágpúr, India. A. R. Binnie, xxxix. 11, 24, 55.

— water. Sandhurst, Victoria. G. Gordon, lvii. 196.

Influence of forests on the discharge of water-courses, and on the moisture in the air. M. Fautrat, xl. 299.

Proportion of outfall of rivers to rainfall. Capt. E. R. James, R.E., xxvii. 233;—C. Greaves, xlv. 94.

— of outflow by under-drainage. J. B. Denton, xxi. 55; tables, 66–82; T. Hawksley, 100; G. P. Bidder, 108; R. Mallet, 115.

“Results of a series of observations on the flow of water off the ground in the Woodburn district, near Carrickfergus, Ireland; with rain gauge registries in the same locality for a period of twelve months, ending 30th June, 1865.” R. Manning, xxv. 458. (2 plates.)—Discussion: R. Manning, xxv. 470, 476, 477; J. F. Bateman, 472; N. Beardmore, 474; S. C. Homersham, 475; R. Rawlinson, C.B., 476; C. Greaves, 476; M. Scott, 477; C. E. Cawley, 477.

**RAINFALL—PERCOLATION:—**

Absorption of water in chalk and sand. J. F. Bateman, lii. 29.

Rainfall—Percolation—*continued*.

Comparative rainfall and percolation into the earth. Tables. J. Dickinson, ii. (1843), 160; ix. 158, xiv. 51.

Influence of under-drainage of the Wandle valley, on percolation of rain. J. Simpson, xx. 212.

— of capillary action on percolation. Dr. J. H. Gilbert, 53.

Percolated water, distribution of, in 'free' soil. J. B. Denton, xxi. 54.

Percolation at Watford. J. Hawkshaw, xxi. 129.

— by Dalton's gauge: Watershed of the upper Thames. Rev. J. C. Clutterbuck, xxii. 345, 348.

— in chalk and red sandstone. F. Braithwaite, xx. 210, 231; J. Gibbs, 213; S. C. Homersham, 216; J. Evans, 226; T. Hawkshale, 230.

— into the ground. Major W. R. Johnson, xxxix. 35.

“— of the rainfall on absorbent soils.” (S.) J. Evans, xlv. 208.

— through the bed of the river Churn, a tributary of the Thames. J. Taylor, xxii. 359.

— through chalk: Prof. D. T. Ansted, ix. 364. Through the chalk formation: S. C. Homersham's report: P. W. Barlow, xiv. 48, 88. R. Stephenson's report, 49: J. Hawkshaw, 76, 87; J. Prestwich, Jun., 77, 90. Table by J. Dickinson, xiv. 51, 89; J. Simpson, 94;—J. Gibbs, xx. 213. Tables: J. Lucas, xlvii. 91-93, 156; J. A. Longridge, 145; G. J. Symons, 150; F. G. Bramwell, 154; R. Field, 161; C. Greaves, 163, 164.

— through the soil. C. Greaves, xlv. 23, 24, 26, 27; tables, 28-47; J. Evans, 51; Dr. J. H. Gilbert, 52; tables, 56, 59, 60; Ebermayer, 53; tables, 57, 58; J. H. Taunton, 83; R. Field, 86; table, 87.—Prof. E. Hull, xlix. 164.

Rainfall and percolation, valley of the Colne. J. Dickinson, ii. (1843), 159; table, 160.

— on soil and chalk, at Nash Mills, Hertfordshire, through Dalton's gauge 1833-60. J. Evans, xx. 219, 228; tables, 220-224; xlv. 208.

## RAIN-GAUGES:—

Dalton's rain-gauge. Rev. J. C. Clutterbuck, ix. 157;—Prof. D. T. Ansted, xlv. 96.

— *versus* Dickinson's gauge. S. C. Homersham, xxii. 361; F. Braithwaite, 365.

Dickinson's gauge. S. C. Homersham, xiv. 81; J. Dickinson, 84; J. Evans, 86. Improved form: J. Evans, xlv. 208.

Gauge for evaporation from the surface of water. C. Greaves, xlv. 22, 27, 94; S. C. Homersham, 72; G. Dines, 81; R. Field, 86.

Rain-gauge. C. Greaves, xviii. 391; xxxix. 46; xlv. 20, 88.

Sand-gauge, for percolation through the soil. C. Greaves, xlv. 22, 25, 27, 92; Dr. J. H. Gilbert, 52; S. C. Homersham, 72.

Staff-gauges, observations with: S. C. Homersham, vii. 276; J. F. Bateman, 277, 287.

RAMS, steam, see *Ships of war*.

## RECLAMATION OF LAND:—

Historical notice. Sir J. Rennie, v. 49.

“Closing of reclamation banks.” J. M. Heppel, xxiii. 168.—Discussion: G. W. Hemans, xxiii. 180; C. B. Vignoles, 181, 183; A. Giles, 182;

Reclamation of land—*continued*.

G. P. Bidder, 182; J. Leslie, 184; J. S. Russell, 184; W. A. Brooks, 194; J. M. Heppel, 185.

Commercial results of reclamation. A. Giles, xxiii. 182; G. P. Bidder, 182.

General principles of reclamation. J. Oldham, xxi. 455, 461; J. H. Muller, 466, 474, 488, 491; C. B. Vignoles, 478; J. Gibbs, 480; G. P. Bidder, 485.

—W. A. Brooks, xxvi. 413.—W. H. Wheeler, xlv. 68; Sir J. Cooke, 76.

Levees as a system for reclaiming lowlands. G. W. R. Bayley, xlv. 300.

Process of reclamation. "Warping," or raising the surface of low lands by tidal deposit: J. Paton, xxi. 455. Reclamation on the Humber, 460; on Sunk Island, 462, 464.

"Reclaiming land from seas and estuaries." J. Oldham, xxi. 454. (2 plates.)  
—Discussion: *vide* following Paper.

"—from seas and estuaries." J. H. Muller, xxi. 466.—Discussion on this Paper and the preceding Paper, and J. Paton's Paper on Sea-dykes of Schleswig and Holstein (*seq.*): J. Hawkshaw, xxi. 478, 491; C. B. Vignoles, 478; J. Gibbs, 479; A. Giles, 481; J. Brunlees, 481; G. W. Hemans, 482; Prof. Forchhammer, 483; G. P. Bidder, 485; J. Paton, 487; J. Oldham, 488; J. H. Muller, 488.

Rule for width of opening for closing reclamation-banks. J. M. Heppel, xxiii. 179.

Austrian (South). Railway reclamation of swamps along the course of the, by filling up with ashes, lvi. 340.

Fen rivers:—"Fascine work at the outfalls of the Fen rivers, and reclamation of the foreshore." W. H. Wheeler, xlv. 61. (1 plate.)—Discussion: W. Shelford, lxvi. 74; W. A. Brooks, 74; E. Benedict, 75; Sir J. Cooke, 76, 78; J. N. Shoolbred, 77; J. B. Redman, 77; W. H. Wheeler, 79.

Friesland. Land reclamation on the coast of Friesland, lii. 371.

Grimsby (Great) docks. E. H. Clark, xxiv. 38, 41.

Holland. Reclamation on the coast of Holland. G. B. W. Jackson, vi. 95.

—J. H. Muller, xxi. 470; A. Giles, 481.—T. C. Watson, xii. 160.

India, Sunderbund district: proposals for its reclamation. J. Murray, xxi. 28.

Jarrow slake. T. F. Harrison, xviii. 490, 517; G. P. Bidder, 522;—W. A. Brookes, xxvi. 410; T. E. Harrison, 428; J. Abernethy, 438.

Lough Swilly: mud settlements caused by reclamation embankment. W. J. Doherty, lv. 97.

— and Foyle. "On reclaiming land from the sea, with plans illustrative of works in Loughs Swilly and Foyle." J. W. Bazalgette, i. (1840) 41.

Maxqueller. Reclamation of the Maxqueller. H. Eckermann, xlii. 280.

Morecambe Bay, reclamation by railway embankments. J. Brunlees, xiv. 289.

Musselburgh:—"Description of the formation of the townlands of Musselburgh, on the Firth of Forth." J. Hay, iii. 127.

Norfolk coast. J. S. Valentine, xxiii. 252.

Schleswig and Holstein. "On the sea-dykes of Schleswig and Holstein, and on reclaiming land from the sea." J. Paton, xxi. 426. (3 plates.)—

Discussion: see Paper by J. H. Muller (*ante*).

Seine. Reclamation from the estuary of the Seine, liv. 299.

See *Drainage of land*.



RECOIL, principle of the utilisation of. G. W. Rendel, xxxviii. 100, 132.

REFRIGERATORS :—See *Cold and Refrigeration*.

RESERVOIRS, storage :—

Historical notice. R. Rawlinson, xviii. 393.

Banks of Reservoirs: Principles on which they should be constructed. J. H. Latham, xxxiv. 77; R. C. Reid, 94; R. Aitken, 101; R. Rawlinson, C.B., 103.

Dispositions and proportions of reservoirs. T. Hawksley, xviii. 385, 398.

"Formation of embankments for reservoirs to retain water." R. Thom, ii. (1843), 191.

Peat bogs as reservoirs. W. Topley, xlv. 90.

Self-acting sluices to regulate the flow from reservoirs. H. Conybeare, xvii. 573.

Storage of flood water. C. W. Merrifield, xlv. 68; W. Shelford, 81; W. Topley, 90; E. J. Lloyd, 97.

Tunnel or side outlets: R. Rawlinson, xviii. 392.

Adelaide. Thornden Park reservoir. W. Clark, lvi. 157.

Bann river: supply of water power. "Description of the Bann reservoirs, County Down, Ireland." J. F. Bateman, i. (1841), 168.

— supply of water power. "Description of the Bann reservoirs, County Down, Ireland." J. F. Bateman, vii. 251. (8 plates.)—Discussion: J. F. Bateman, vii. 274, 275, 277, 284, 287; S. C. Homersham, 274, 276, 280, 282, 284, 286; J. Glynn, 275; T. Hawksley, 275, 282, 287; J. Murray, 277; J. Walker, 281, 286; W. Pole, 281; Sir C. Malcolm, 282; N. Beardmore, 285; Mr. McCleery, 287.

Bouzey reservoir, Eastern Canal of France. W. B. Dawson, lv. 217.

Ceylon. Reservoirs and tanks. H. Byrne, lvii. 232, 234; Giant's tank, 235.

Edinburgh, Dundee, and other waterworks. Table of quantities of reservoirs. A. Leslie, xxxi. 47.

Garnet Hill, by the Glasgow Waterworks Company, description of a cast-iron reservoir erected at. D. Mackain, ii. (1843), 139.

Malta, Coradino tank at, ii. (1843), 140.

Melbourne waterworks. Yan Yean reservoir. M. B. Jackson, xviii. 370.

Paris, reservoirs for water supply of. G. R. Burnell, xxv. 486.

Rio Rimac, Peru, reservoirs of the, xlviii. 318.

Potsdam waterworks, reservoir. W. H. L. Green, lv. 384.

Spain: Laguna del Rey. Irrigation reservoirs. J. D. Barry, xxxvii. 520.

Thames valley, storage of flood water in the. G. J. Symons, xlv. 8; Rev. J. C. Clutterbuck, 66; S. C. Homersham, 69; J. H. Taunton, 85; Prof. J. Prestwich, 98.

Victoria. Reservoirs. W. Clark, lvi. 152.

See *Irrigation*; *Water supply*—*Waterworks*.

RESERVOIRS, STORAGE—DAMS :—

Construction of dams for storage reservoirs. H. Conybeare, xvii. 571.

— of embankments of reservoirs, Mr. J. Leslie's specification. H. Conybeare, xviii. 389; R. Rawlinson, 392, 396.

Dams in ashlar masonry, principles of construction. M. Bodson, xlviii. 314; —E. Dobson, lvi. 111.

**Reservoirs, storage—Dams—continued.**

Embankments for impounding water. T. Hawksley, xxxi. 70.

Masonry dams for reservoirs. G. L. Molesworth, xl. 313.

Principles of the design and construction of dams. F. Kuhn, lvi. 338.

Walls to resist the pressure of water (principles of construction). M. Pelletreau, lii. 297.

Bombay waterworks. Earthen dams at the Vehar Lake. H. Conybeare, xvii. 560, 566.

Croton river, New York, watershed of the. Construction of a masonry dam for a storage reservoir. J. J. B. Croes, xl. 310.

Gileppe (masonry) dam at Verviers. M. Bodson, E. Detienne, and F. Leclercq, xlviii. 312 ;—F. Kuhn, lvi. 337.

Habra irrigation reservoir dam in Algeria (masonry). L. Pochet, xli. 248 ; —C. Grad, liii. 325.

Lancaster waterworks, river Wyre. Masonry-dam. J. Mansergh, lvi. 169.

Parramatta water supply, New South Wales, masonry dam. E. O. Moriarty, lvi. 159.

Worcester dam, U.S.A. (earth-work), failure of the. Messrs. Ellis, Greene, and Wilson, xlvii. 351.

See *Railway Embankments in water.*

**RESISTANCE** of materials. See *Strength* of materials.

**RESISTANCE** of trains on railways. See *Railways*, resistances on.

**RESPIRATOR**, Jeffreys'. J. Stirling, iv. 356 ; J. Jeffreys, 360 ;—J. Leslie, xii. 566.

**RETORTS.** See *Gas*, coal.

**RHEOSTATIC** machine. G. Planté, lii. 397. See *Electricity* (Voltaic).

**RIFLES.** See *Fire-arms.*

**RIFLING** of guns. See *Artillery.*

**RIVERS:—**

"Account of a machine for cleaning and deepening small rivers, in use on the Little Stour river, Kent." W. B. Hays, (T.) ii. 181.

Action of, in the economy of nature. J. T. Harrison, vii. 328.

Canalisation or "dockising" of rivers. J. Abernethy, lv. 49 ; W. R. Browne, 58 ; H. Hayter, 70 ; J. B. Mackenzie, 91 ; J. E. Williams, 95.

Drainage of large rivers, Italy. R. B. Grantham, xix. 82 ; Sir J. Rennie, 98.

Efficacy of walls in estuaries, and of groynes. M. A. Brookes, xii. 6, 10, 21 ; J. Murray, 13 ; J. S. Russell, 17 ; Capt. Rowland, 19.

Embankment of rivers with fascines. E. L. Williams, Jun., xxiv. 78 ; T. M. Johnson, 99.—W. H. Wheeler, xlv. 67.

— of rivers with faggots. W. H. Wheeler, xxviii. 78.

Estuaries, classification of. W. A. Brookes, xii. 2 ; T. E. Blackwell, 14 ; T. Hawksley, 16.

"Floods in England and Wales during 1875, and on water economy." G. J. Symons, xlv. 1. Discussion : see O. Greaves's Paper on "Evaporation and on Percolation" (*Rainfall—evaporation*, p. 257).

## Rivers—continued.

- Fluviograph, for registering the levels of a river, liv. 297; lviii. 351.
- Gauges for registering water levels (of streams). J. B. Chabaneix, xliii. 355.
- "Improvement of tidal navigations and drainages." W. A. Brooks, xii. 1.—  
Discussion: R. Stephenson, xii. 12; Capt. Coddington, R.E., 13; J. Murray, 13; T. E. Blackwell, 14; Capt. Hood, R.N., 15; T. Hawksley, 16; J. S. Russell, 17; J. Hawkshaw, 18; Capt. Rowland, 19; Capt. Moorsom, 20; J. Locke, 20; W. Radford, 21; W. A. Brooks, 21; J. M. Rendel, 22.
- of rivers: definition. T. Hawksley, xxi. 101.
- of rivers, by oblique weirs. W. Cubitt, V.P., vii. 245. River Altmühl: B. W. Croker, vii. 249. By new channels, or forecuts; River Theiss: B. W. Croker, vii. 249.
- of rivers by straightening them. J. S. Russell, xxiv. 87, 100; T. M. Johnson, 98; J. Hawkshaw, 100.
- "— of navigable rivers, with a description of a self-acting waste-board at Naburn lock on the river Ouse." H. Renton, i. (1840), 26.
- "— of the roads, rivers, and drainage of the counties of Great Britain." R. Sibley, i. (1841), 100.
- Influence of reclamations of land on the régime of rivers and estuaries. G. P. Bidder, xxi. 487.
- "Observations on the causes that are in constant operation tending to alter the outline of the English coast, to affect the entrances of the rivers and harbours, and to form shoals and deeps in the bed of the sea." J. T. Harrison, vii. 327.—Discussion: see *Coast*, English (p. 58).
- "Obstructions to navigation in tidal rivers." J. T. Harrison, viii. 310.—Discussion: J. S. Russell, 329.
- Principles for improving rivers in flat countries. R. B. Grantham, xix. 76.
- Regulation of rivers, principle of. Sir J. Rennie, v. 39.
- Report of Hydrotechnic Committee on diminution of water in springs and rivers, xlii. 271.
- Researches on the form of the longitudinal and cross-sections of gravel-bearing rivers. H. Sternberg, xliv. 258.
- Scour of rivers. T. Hawksley, xix. 118; G. P. Bidder, 128.—J. Murray, xx. 16; J. S. Russell, 16; W. A. Brooks, 17; T. Hawksley, 17; G. P. Bidder, 25.—W. R. Browne, lv. 58; W. Parkes, 61; Sir J. Cooke, 87.
- Navigable rivers and estuaries. Tidal water only *versus* fresh water and tidal scour. J. A. Longridge, xxi. 21; J. Murray, 26; J. R. Mc'Clean, 28; A. Giles, 29; J. Hawkshaw, 29, 308; W. A. Brooks, 30; G. P. Bidder, 32, 299.
- Land water *versus* tidal water: the Danube *versus* the Thames. G. P. Bidder, xxi. 299; C. A. Hartley, 307; J. Hawkshaw, 308; J. Leslie, 341; Sir J. Rennie, 341; J. Abernethy, 343.
- Table exhibiting a few of the physical features of rivers in various parts of the globe: Lieut.-Col. P. P. L. O'Connell, xxvii. 215 to 217. Rivers on the East Indian railway, table of, 269.
- Tidal flow of rivers, an evil. W. R. Browne, lv. 58; Sir J. Cooke, 87.
- Tidal rivers, influence of alteration of form of section on the flow of the water. B. Latham, liv. 41; H. Law, 45; J. F. Bateman, 59.
- Training of rivers by jetties or groynes *versus* longitudinal walls. J. Murray, xxiv. 75, 82; J. Abernethy, 77; E. L. Williams, Jun., 77; Sir J. Rennie,

**Rivers—continued.**

- 83; N. Beardmore, 85; J. S. Russell, 86; G. W. Hemans, 96; W. A. Brooks, 97; T. M. Johnson, 99.
- Training of alluvial rivers. W. H. Wheeler, xlv. 61, 79; E. Benedict, 75; Sir J. Coode, 76; J. N. Shoolbred, 77.
- New and simple method of river training. A. Geppert, liv. 298.
- rivers in India. C. Stone, xxxix. 216, 217.—H. Lambert, liv. 73; I. Bell, 114. Removal of mud islands; E. J. Jones, 118.
- Utility of groynes in rivers. J. T. Harrison, viii. 327.
- Waters and the hydrographic changes of Italy. A. Baccarini, xlix. 327.
- Watershed of principal rivers in England. R. B. Grantham, xxii. 365.
- See *Drainage of Land*; *Floods*; *Water*, flow of in rivers, canals, and streams.

**RIVERS, POLLUTION OF:—**

- Pollution of rivers, town drainage, and sewage: Discussion, xx. 232.
- J. Simpson, xx. 232; Sir J. Rennie, 232; J. Gibbs, 233; T. Hawksley, 233; R. Rawlinson, 237; W. T. Haly, 241;—R. Rawlinson, xxii. 294; J. Hawkshaw, 304.
- Preventing the contamination of streams by drainage from cloth factories. Dr. Landolt and Prof. Stahlschmidt, xl. 320.
- Avon, river. J. Green, vii. 76; Lord R. Grosvenor, 86.
- Thames. Sewage and sewage mud in the Thames. H. Robinson, xv. 202;—G. P. Bidder, xxiv. 348; J. W. Bazalgette, 357.
- Condition of the river Thames. J. Abernethy, xliii. 206, 207; Sir J. W. Bazalgette, 209;—J. Abernethy, xlv. 189; Sir J. W. Bazalgette, 192; Vice-Admiral Sir F. Nicolson, 195.
- Sewage discharged into the river Thames. J. B. Redman, xlix. 78.
- Seine. Report of the commissioners on the pollution of the Seine, xliiii. 359.
- Pollution of the Seine. F. Target, liii. 208.
- Wandle, river: Pollution. F. Braithwaite, xx. 191, 210.

**RIVERS, STEAM POWER ON:—**

- Steam tugs *versus* steam barges: J. Healy, xxvi. 6, 7; E. L. Williams, 17; L. Williams, Jun., 23; C. J. Appleby, 40.
- Elbe. On towing by chains on the river Elbe. F. Bauer, l. 216.
- Severn; paddle steam tugs; E. L. Williams, xxvi. 16. Screw steam barges, 17.
- Thames. Paddle steam tugs. E. E. Allen, xxvi. 22.
- Weaver. Steam-towing barges. L. Williams, jun., xxvi. 23.

**RIVERS, BRITISH:—**

- Ancholme. "An account of the drainage of the Level of Ancholme, Lincolnshire." Sir J. Rennie, iv. 186.
- Avon. Proposals to dockise the river Avon. J. B. Mackenzie, lv. 4; J. Abernethy, 49; W. R. Browne, 58; W. Parkes, 61; H. Hayter, 71.
- Blyth. Straightening and deepening the channel. J. Abernethy, xxi. 323.
- Calder. Pitching the face of the banks of the river Calder. W. Ball, ii. (1842), 130.
- Clyde. Historical notice: W. Bald, v. 315, 317; J. Walker, 316; J. B. Redman, 333;—J. Murray, xxiv. 82. Discharge: W. Bald, v. 316. Improvement of the Clyde: W. Bald, v. 315, 317; J. Walker, 316; C. Ather-

Rivers, British—*continued*.

- ton, 330; W. Thorold, 331; J. B. Redman, 333. Proposed canalisation of the Clyde: J. S. Russell, x. 291. Improvements: T. Ormiston, xix. 110. Action of groynes or jetties: J. Abernethy, xxiv. 77; J. Murray, 82; N. Beardmore, 85; J. S. Russell, 86, 89. Scouring action of steamers: J. F. Ure, xxvi. 20. Improvement of the river: N. Beardmore, xxvi. 433. Sectional areas: J. Deas, xxxvi. 199.
- Clyde. "The river Clyde." J. Deas, xxxvi. 124. (5 plates.)—Discussion: J. F. Bateman, xxxvi. 172; J. B. Redman, 174; Lord Blantyre, 178; J. Abernethy, 181; Capt. A. K. Calver, R.N., 183, 184; W. A. Brookes, 184; Sir J. Coode, 185; J. T. Harrison, 186; W. Shelford, 188; G. R. Stephenson, 189; R. C. Rapier, 191; D. T. Fender, 191; J. Deas, 194.
- Cork river. Result of dredging in it. Mr. Lecky, xxiv. 83.
- Dee, Aberdeen. Straightening the entrance. J. Abernethy, xxi. 323.
- Dee, Chester. Historical notice: W. Parke, xxiv. 92. Underflow of flood-tide: Sir E. Belcher, xxi. 340; D. Stevenson, 340; R. Rawlinson, 342. Treatment of the Dee by groynes: J. S. Russell, xxiv. 86; W. Parke, 91.
- Fen rivers. Reservoir or 'wash' of the river Nene and other fen rivers, formed by embankment. W. Shelford, xlv. 79.
- Fascine works at the outfalls of the Fen rivers, and reclamation of the foreshore." W. H. Wheeler, xlv. 61.
- See *Drainage of Land*.
- Humber. "On the outfall of the river Humber." W. Shelford, xxviii. 472. (2 plates.)—Discussion: W. Shelford, xxviii. 493, 515; J. B. Redman, 493; J. Abernethy, 497; J. F. Bateman, 498; Capt. Calver, R.N., 499; J. Coode, 501, 515; J. Murray, 504; J. T. Harrison, 506; W. H. Bartholomew, 508; W. Parke, 509; Astronomer Royal, 512; T. Webster, Q.C., 513; T. E. Harrison, 514.
- Composition of the silt, J. M. Rendel, ix. 18; Dr. Buckland, 20.
- The effect of the wasting coast upon the estuary of the Humber. R. Pickwell, li. 210.
- Lagan. Improvement of the approaches to the harbour of Belfast. T. R. Salmond, lv. 22.
- Lea. "Description of the navigation and drainage works recently executed on the tidal portions of the river Lea." N. Beardmore, xliii. 241, 250. (3 plates.)
- "Description of the improvements on the second division of the river Lea navigation, with remarks on the position of canals generally, in reference to the development of their resources." R. C. Despard, xvii. 386. (1 plate.)—Discussion: N. Beardmore, xvii. 399, 405; F. Lawrence, 401; J. Murray, 405; G. W. Hemans, 406; R. Stephenson, 406; R. C. Despard, 408; J. B. Redman, 408; T. E. Harrison, 409.
- Discharge of the river Lea in 1850, by N. Beardmore, xiv. 52; table, 53; 70. Gauging the river: N. Beardmore, xxvii. 236.
- Medlock. Flood waters. J. F. Bateman, xxii. 362.
- Mersey. Section and plan of the river, at Liverpool. J. Ellacott, xxviii. 533.
- "On the changes in the tidal portion of the river Mersey, and in its estuary." J. N. Shoolbred, xlv. 20. (5 plates.)—Discussion: Admiral G. Evans, xlv. 50; R. Rawlinson, C.B., 51; W. A. Brooks, 54; E. L. Williams, Jun., 55; A. Giles, 56; J. B. Redman, 58; J. N. Shoolbred, 59.
- Nene. Floods in the Nene. W. Shelford, xlv. 79; G. J. Symons, 92.

## Rivers, British—continued.

Newry. Improvement of the navigation. Sir J. Rennie, iv. 371.

— “On the improvement of the navigation of the river Newry.” Sir J. Rennie, x. 277. (1 plate.)—Discussion: Sir J. Rennie, x. 290, 292; J. S. Russell, 291, 293; J. M. Rendel, 292, 293; T. F. Ure, 293; W. Cubitt, 293.

Oikel. Discharge of river Oikel. J. Murray, xx. 324.

Orwell. Historical notice: G. Hurwood, xx. 4; P. Bruff, 14. Improvement by scour: G. Hurwood, xx. 16; J. G. C. Curtis, 23.

— “On the river Orwell and the port of Ipswich.” G. Hurwood, xx. 4. (1 plate.)—Discussion: P. Bruff, xx. 14, 22; G. Hurwood, 16, 18; J. Cooper, 16; J. Murray, 16, 24; J. S. Russell, 16; W. A. Brooks, 17, 24; T. Hawkaley, 17, 24; F. Braithwaite, 18; J. B. Redman, 18; J. G. C. Curtis, 18, 24; G. P. Bidder, 24.

Severn. “On the estuary of the river Severn.” W. Parkes, v. 300.—Discussion: J. Walker, 309, 311, 313, 316; J. S. Russell, 310, 313; Sir J. Rennie, 311, 314, 331; G. W. Hemans, 311; W. Bald, 312, 314, 315, 317; I. K. Brunel, 312; J. Taylor, 312; J. Leslie, 313; J. F. Bateman, 313; J. Thomsom, 314; R. Beamish, 314; C. Atherton, 330; W. Thorold, 331; J. B. Redman, 333.

— “Account of the works lately constructed for improving the navigation of the river Severn, with their effect in discharging the flood waters.” E. L. Williams, v. 340. (3 plates.)—Discussion: W. Cubitt, v. 348, 351, 352, 355, 357, 359; J. F. Bateman, 350, 352, 358; R. Stephenson, 351, 355; I. K. Brunel, 351; W. Fairbairn, 352; G. P. Bidder, 356, 357, 360; E. L. Williams, 357; J. Thomson, 358, 360; J. Farey, 358; J. S. Russell, 359; W. Gravatt, 359; R. B. Grantham, 360.

— Lincomb embankment. E. L. Williams, v. 342.

— “Account of the works recently constructed upon the river Severn, at the Upper Lode, near Tewkesbury.” E. L. Williams, xix. 527. (1 plate.)—Discussion: W. A. Brooks, xix. 534; J. Murray, 534; N. Beardmore, 534; J. G. C. Curtis, 535, 540; W. Parkes, 538; M. Scott, 539; T. Hawkaley, 539; G. W. Hemans, 540; E. L. Williams, 540; G. P. Bidder, 544.

Stour. Floods in the Stour. A. Payne, xlv. 90.

Tawe. Straightening and deepening the river. J. Abernethy, xxi. 312.

Tees. Historical notice. Jos. Taylor, xxiv. 63, 67; J. Murray, 79.

— “Description of the river Tees, and the works upon it connected with the navigation.” Jos. Taylor, xxiv. 62. (4 plates.)—Discussion: W. A. Brooks, xxiv. 72, 76, 96; J. Murray, 74, 79; J. Abernethy, 77; E. L. Williams, jun., 77; R. W. Jackson, 78; R. J. Lecky, 83; Sir J. Rennie, 83; N. Beardmore, 85; J. S. Russell, 86, 100; W. Parkes, 91; G. W. Hemans, 95; T. M. Johnson, 98; P. J. Messent, 100; J. Hawkshaw, 100; Jos. Taylor, 101.

— groynes and parallel walls; J. Simpson, vii. 246; W. Cubitt, 246.

Thames. Historical notice. H. Robinson, xv. 195; J. B. Redman, 210; C. Pearson, 216; Rev. J. C. Clutterbuck, xxii. 341, 345.

— “On the past and present condition of the river Thames.” H. Robinson, xv. 195.—Discussion: H. Robinson, xv. 207, 244; C. B. Vignoles, 210, 230; J. B. Redman, 210, 242; C. Pearson, 216; Dr. Daniell, 220; Sir J. Rennie, 221, 230; W. Haywood, 222; J. W. Bazalgette, 224;

## Rivers, British—continued.

- J. Gibbs, 224; N. Beardmore, 226, 231; Rev. J. C. Clutterbuck, 227; S. W. Leach, 228; I. K. Brunel, 229; J. Hawkshaw, 230; J. Fowler, 233; G. P. Bidder, 236; J. M. Rendel, 240; Capt. Moorsom, 244; R. Stephenson, 246.
- Thames. Improvements in the Thames. S. W. Leach, xix. 111; N. Beardmore, 115; T. Hawkaley, 118.
- "The perennial and flood waters of the Upper Thames." Rev. J. C. Clutterbuck, xxii. 336. (1 plate).—Discussion: Rev. J. C. Clutterbuck, xxii. 353, 357, 368; J. Towle, 354; Mr. Randall, 355; J. H. Taunton, 357; J. Taylor, 359; S. C. Homersham, 360; J. F. Bateman, 362; F. Braithwaite, 364; R. B. Grantham, 365; W. Gravatt, 366; F. King, 366; J. Hawkshaw, 369.
- Floods in the Thames. G. J. Symons, xlv. 8, 91; Rev. J. C. Clutterbuck, 66; C. W. Merrifield, 68; J. B. Redman, 100; J. S. Russell, xlix. 135; Sir P. Colquhoun, 137; W. H. Cutler, 142; Prof. W. C. Unwin, 156.
- "The river Thames." J. B. Redman, xlix. 67. (3 plates).—Discussion: J. B. Redman, xlix. 115, 147; O. E. Coope, 115; W. Shelford, 116; J. N. Shoolbred, 118; Sir G. B. Airy, 120; Capt. Burstal, 123; H. Hayter, 128; H. Law, 130; J. Abernethy, 131; J. H. Taunton, 132; J. Scott Russell, 133; W. Parkes, 136; Sir P. Colquhoun, 137; C. Greaves, 137; G. H. Phipps, 140; W. H. Cutler, 142; Sir J. Coope, 143; G. R. Stephenson, 143; G. J. Symons, 146; W. D. Cay, 154; Rev. J. C. Clutterbuck, 155; E. Roberts, 155; Prof. W. C. Unwin, 156; E. L. Williams, 158; J. Newton, 182; B. S. Brundell, 182; H. Robinson, 184; J. C. Mellis, 185; W. Atkinson, 187; J. Mansergh, 189; Dr. Voelcker, 191; R. Hassard, 194; A. Jacob, 196; Dr. W. Pole, 197; R. W. P. Birch, 198; J. B. Alliot, 201; R. Aitken, 203; W. Donaldson, 204; M. Mille, 213; J. Brunlees, 213; C. F. Gower, 214; C. N. Bazalgette, 216.
- Floods in the river Thames. J. Abernethy, liv. 26.
- flood-waters. Influence of under-drainage on the flood-waters of the Thames; Rev. J. C. Clutterbuck, xxi. 84.
- Under-flow of the flood-tide at Woolwich: Admiral Sir E. Belcher, xxi. 339.
- Watershed: Rev. J. C. Clutterbuck, xxii. 336.
- Tributaries of the Thames: Rev. J. C. Clutterbuck, xxii. 336.
- Discharge of the Thames, with its tributaries: Rev. J. C. Clutterbuck, xxii. 343.
- Flood-waters, xxii. 345, 347, 369; J. H. Taunton, 357; J. Taylor, 359;— J. B. Redman, xlv. 100; J. Taylor, 101; table, 102.
- Shoaling: J. B. Redman, xxiii. 186, 225.
- Flow of the river Thames, xlv. 237.
- Outfall channels: J. B. Redman, xlvii. 59.
- Closing of the Dagenham breach of 1715. J. Lealie, xxiii. 184.
- Embankments. Historical notices. E. Bazalgette, liv. 1; J. B. Redman, 83.
- Embankments: J. B. Redman, xlix. 77; Sir G. B. Airy, 121. Deposits of mud: J. B. Redman, xlix. 93; W. Shelford, 116. Subsidence of the bed of the river: J. H. Taunton, 133. Flow of the Thames: Prof. W. C. Unwin, 156.

Rivers, British—*continued*.

Thames. Effect of embankments, dredging, &c., on the river. J. Abernethy, liv. 26; W. Shelford, 28; Sir J. Bazalgette, 30; J. B. Redman, 34; A. Giles, 38; F. W. Wentworth Sheilda, 39; B. Latham, 41; H. Law, 45; J. S. Russell, 46; W. Parkes, 48; E. Bazalgette, 57; J. F. Bateman, 59.

— Albert, or Southern, Embankment of the Thames. J. Grant, xxxii. 726; J. W. Bazalgette, 311.

— "The Victoria, Albert, and Chelsea Embankments of the river Thames. E. Bazalgette, liv. 1. (2 plates.)—Discussion:—E. Bazalgette, liv. 25, 53; J. Abernethy, 26; W. Shelford, 28; Sir J. Bazalgette, 30; J. B. Redman, 33; A. Giles, 38; F. Wentworth-Sheilda, 39; B. Latham, 40; H. Law, 45; J. S. Russell, 46; W. Parkes, 48; W. J. Doherty, 49; J. W. Johnson, 50; W. Lawford, 51; H. Robinson, 51; J. N. Shoolbred, 52; G. H. Tait, 53; J. F. Bateman, 58.

— Landing stages on the 'Thames embankment; J. W. Bazalgette, xxvii. 227; N. Beardmore, 228.

Tyne. Improvement of the river by the construction of Tyne docks, on Jarrow Slake: T. E. Harrison, xviii. 490, 517; W. A. Brooks, 513; Sir J. Rennie, 520; G. P. Bidder, 521; R. Stephenson, 523; J. Abernethy, 523.

— "Memoir on the river Tyne." W. A. Brooks, xxvi. 398. (5 plates.)—Discussion: W. A. Brooks, xxvi. 421, 439; C. H. Gregory, 423; C. B. Vignoles, 423; J. F. Bateman, 424, 425; G. W. Hemans, 425; G. F. Lyster, 425; G. R. Stephenson, 425; T. E. Harrison, 428; J. A. Longridge, 429; J. Cubitt, 431; G. H. Phipps, 431; N. Beardmore, 432; J. Graham, 434; J. B. Redman, 435; J. Brunlees, 438; J. Abernethy, 434.

— Longitudinal section. T. E. Harrison, xviii. 502.

Wandle. "On the rise and fall of the river Wandle; its springs, tributaries, and pollution." F. Braithwaite, xx. 191.—Discussion: G. P. Bidder, xx. 209, 255; F. Braithwaite, 210, 231; J. Simpson, 211, 232; Sir J. Rennie, 212, 232; J. Gibbs, 212, 233; T. Hawksley, 213, 218, 230, 233, 249, 250, 253; S. C. Homersham, 216, 235; J. Fenton, 217, 235; R. Rawlinson, 218, 236, 246; J. Evans, 219, 237, 251; R. B. Grantham, 228; J. F. Bateman, 229; J. B. Denton, 229, 240, 253; G. R. Stephenson, 230; W. Drummond, 238, 252; W. T. Haly, 240; C. Greaves, 247; J. H. Lloyd, 251, 254; J. Hawkshaw, 251.

— Watershed of the Wandle. F. Braithwaite, xx. 206; J. Simpson, 211; T. Hawksley, 213; S. C. Homersham, 216.

Wear. "An account of the progressive improvement of Sunderland harbour and the river Wear." J. Murray, vi. 256.—Discussion: see *Harbour*, *Sunderland*.

Weaver. The Weaver navigation. S. Duer, xlv. 107; E. L. Williams, 118.

Witham. "Description of the River Witham and its estuary, and of the various works carried out in connection therewith, for the drainage of the fens, and the improvement of the navigation." W. H. Wheeler, xxviii. 59.

—Discussion: see *Drainage of Land*.

## RIVERS, AMERICAN:—

Atrato. Account of the Atrato. F. M. Kelley, xv. 383.

Croton, flow of the west branch of. J. J. R. Croes, xxxix. 367.

Mississippi, delta of the. Major-General J. G. Barnard, xlii. 278.

— Mississippi river improvements. Capt. J. B. Eads, li. 361.



*Rivers, American—continued.*

St. John's River. Improvement of the St. John's River, Florida. J. B. Eads, lv. 365.

St. Lawrence and Mississippi. "Notes on public works in the United States and in Canada, including a description of the St. Lawrence and the Mississippi rivers and their main tributaries." (S.) Sir C. A. Hartley, xl. 163.

Uruguay. Discharge of river Uruguay. G. Higgin, lvii. 272.

**RIVERS, FOREIGN (EUROPEAN):—**

Aar. Improvement of the river Aar between Thun and Uttigen. J. Zürcher, xlviii. 302.

Adige. On the river Adige, and the systems for protecting its banks, lvi. 331.

Brenta. Diversion of the Brenta from the lagoon of Chioggia. R. Pareto, l. 210.

— The regulation of the rivers Brenta and Bacchiglione according to the plans of the engineers, Fossombroni and Paleocapa. G. Ponti, lv. 361.

Charente. The Mérienne dam on the Charente. M. Alexandre, xlviii. 311.

Chélif. Damming of the Chélif. M. Lamairesse, xxxix. 390.

Danube. Mode of rendering the Danube navigable. B. W. Croker, vii. 247.

— Sulina mouth of the Danube. Historical notice. C. A. Hartley, xxi. 290; G. Rennie, 297.

— "Description of the delta of the Danube, and of the works recently executed at the Sulina mouth." C. A. Hartley, xxi. 277. (6 plates.)

— Discussion: C. A. Hartley, xxi. 293, 300; T. E. Harrison, 293; J. R. M'Lean, 294; J. Murray, 294; O. B. Vignoles, 295; G. W. Hemans, 296; Sir J. Paxton, 296; W. A. Brooks, 296; A. Giles, 297; G. Rennie, 297; Admiral Sir E. Belcher, 298; F. W. Shields, 298; G. P. Bidder, 299; J. Hawkshaw, 307.

— "On the changes that have recently taken place along the sea-coast of the delta of the Danube, and on the consolidation of the provisional works at the Sulina mouth." Sir C. A. Hartley, xxxvi. 201. (5 plates.)

— Discussion: W. A. Brooks, xxxvi. 226; J. Abernethy, 226; G. H. Phipps, 227; J. B. Redman, 228; W. Parkes, 230; D. Stevenson, 235; Sir J. Cooke, 237; J. F. Bateman, 241; W. Shelford, 243; Capt. Calver, R.N., 244; Col. J. Stokes, C.B., 246.

— On the closing of an arm of the Danube. J. Prucha, xlv. 266.

— On the effects of floods on the Danube regulation works near Vienna. G. von Wex, xlv. 294.

— Regulation of the Danube at Vienna. Removal of the old river works at Nussdorf. J. Lederer, xlviii. 304.

— Discharge of the Danube. C. A. Hartley, xxi. 281; G. P. Bidder, 299.

Doubs. On the loss of water in the Upper Doubs, and the means of preventing it. H. Resal, xl. 301.

Douro. Improvement of the river Douro, and artificial harbour at Leixões. A. J. N. Soares, lvii. 364. Floods of the river, 366.

Durance. The embankment of the Durance in the department of Vaucluse. M. Hardy, xlv. 297.

— Account of the river Durance, in the south of France. G. Wilson, li. 215.

Elbe. Regulation of the North Elbe. H. Dalmann, xlviii. 307.

Rivers, foreign (European)—*continued*.

- Elbe. Observations on the level of the Elbe in Saxony. M. W. Schmidt, lv. 358.
- France. A general survey of the characteristics of the principal rivers of the north, centre, and south of France. M. Belgrand, xl. 300.
- Garonne and other rivers in France in 1875: Floods of these rivers. M. Belgrand, xlv. 261.
- Gironde. Training the river with fascine work. J. N. Shoolbred, xlv. 77.
- Holland. Relation between water-levels of main rivers in Holland. J. P. Delprat, xxxix. 368.
- Loire, at Orleans. Remarks on the hydrometric observations taken at Orleans since 1830; and the rainfall observations taken in the basin of the Loire since 1862. M. Deglande, xlii. 275.
- Meuse. "On the works executed in Belgium for the improvement of the course of the Meuse." I. Maganzini, l. 207.
- Floods of the river Meuse. I. Maganzini, l. 207.
- Moselle. "On the improvements of the Moselle." Van den Bergh, vii. 226.
- Embankment of the Moselle. G. B. W. Jackson, vii. 230.
- Canalisation of the Mosel from Arnville to Metz. J. Schlichting, xl. 302.
- Po. Survey of the course of the Po. S. Barilari, xlix. 330.
- Floods of the river Po. S. Barilari, xlix. 332; R. Pareto, 334.
- Floods of the Po in the nineteenth century. Chev. P. Gallizia, liv. 300.
- Hydrographic changes in Italy: the estuary of the Po. A. Foschini, lvii. 357.
- Rhine. "The engineering of the Rhine." G. B. W. Jackson, vii. 211.— Discussion: Dean of Westminster, vii. 243; J. Field, 244; J. S. Russell, 244, 245; W. Cubitt, 245, 246; J. Simpson, 246; B. W. Croker, 246.
- discharge of. G. B. W. Jackson, vii., tables, 215, 218. Floods: G. B. W. Jackson, vii. 220. Improvement of the Rhine, by parallel dykes and groynes: G. B. W. Jackson, vii. 224.
- On cutting off a bend of the Lower Rhine. W. H. Hubrecht, xlv. 304.
- Regulation of the Rhine at St. Gallen, lvii. 354.
- Rhone. The St. Louis canal and the mouths of the Rhone. M. Dornès, xli. 251.
- Regulation of the Rhone in the canton of Valais. B. Honsell, lv. 359.
- Scheldt. Tidal portion of the Scheldt and the port of Antwerp. E. T. Quinette de Rochemont, liii. 313.
- Scheur. Regulation of the Scheur. A. Verweg, xlix. 348.
- Seine. Floods of the Seine. H. B. Hederstedt, xxiv. 260.
- Rainfall of the basin of the Seine. M. Belgrand, xxxix. 364.
- Hydrology of the basin of the Seine. A. Delaire, xxxix. 365.
- Report of the commission on the pollution of the Seine, xliii. 359.
- On the flood of the Seine in February-March 1876. M. Belgrand, xlv. 262.
- The flood of the Seine of March 17, 1876. M. Belgrand, xlv. 308.
- On the floods of the Seine, and the means of preserving Paris from inundation. E. Belgrand, xlv. 299.
- The great flood of the Seine in March, 1876. E. Belgrand and G. Lemoine, l. 221.

**Rivers, foreign (European)—continued.**

- Seine. Effect of dykes on the flow of the tides in the Seine. J. N. Shoolbred, liv. 52.
- Navigation of the Seine between Paris and Rouen, liv. 296.
- Embankment of the tidal portion of the Seine, liv. 299.
- Tagus. Floods in the Tagus. W. Topley, xlv. 91.
- Theiss. Mode of rendering the Theiss navigable. B. W. Croker, vii. 249.
- and Maros. On the means for protecting the county of Torontál (Hungary) from inundations by the rivers Theiss and Maros. B. Gonda, xlv. 296.
- Tiber. Hydrometric observations on the Tiber. A. Vescovali, xliii. 356.
- and its delta. Prof. Ponzi, xlvii. 342.
- Report of the commission for preventing inundations of the Tiber in the city of Rome, xlix. 333.
- On the works proper to prevent the inundations of the Tiber in the city of Rome. R. Pareto, xlix. 334.
- Vistula. Hydrographic conditions of the Vistula, Oder, Elbe, and Rhine. H. Rodde, lii. 368.
- White Körös. Mode of rendering the White Körös navigable. B. W. Croker, vii. 249.

**RIVERS, IN INDIA :—**

- Navigable rivers in India: Maj.-Gen. G. B. Tremenhère, xvii. 498. Ganges, 500. Jumna, 500. Indus, 501: A. Henderson, 532.
- Chenab. Regime of river Chenab, Punjab. H. Lambert, liv. 71.
- Training works, 73; P. T. S. Large, 117.
- Ganges. Discharge of the Ganges into the Hooghly. J. A. Longridge, xxi. 14.
- The delta of the river Ganges. J. A. Longridge, xxi. 16.
- Embankments of the Ganges. Maj.-Gen. G. B. Tremenhère, xvii. 488; G. Sibley, 525.
- “Hooghly and the Mutla.” J. A. Longridge, xxi. 2. (1 plate.)—Discussion: J. A. Longridge, xxi. 25; Col. Sale, 25; A. Henderson, 25; J. Murray, 26; J. R. McClean, 28; A. Giles, 29; J. Hawkshaw, 29; W. A. Brooks, 30; Lieut. C. V. Ward, 30; A. S. Ayrton, 31; J. H. Lloyd, 31; J. Borradaile, 31; G. P. Bidder, 32.
- Description. J. A. Longridge, xxi. 3. Historical notice, 8, 22, 25.
- Discharge of water from the Hooghly and its tributaries, 6, 7, 15. Silt, 15, 25.
- Velocity of current of the Hooghly. G. Turnbull, liii. 18. Scour of the Hooghly: B. Leslie, liii. 5, 26; E. Benedict, 23.
- Indus. River training of the Indus at Shah Jamal. G. W. Vyse, i. 213.
- Jumna river, floods of, xxvii. 228.
- Mutla, description of the: J. A. Longridge, xxi. 17. The Mutla compared with the Hooghly: J. A. Longridge, xxi. 19; A. Henderson, 25; J. Murray, 26; A. Giles, 29; Lieut. C. V. Ward, 30.
- Nerbuddah. Floods in the Nerbuddah valley: Account of the river. A. C. Howden, xxvii. 218.
- Nudea rivers. Proposed improvements. J. Murray, xxi. 28.
- Ravi. Scouring of the river Ravi, at the bridge across it, Punjab Northern State railway. R. T. Mallet, liv. 61, 62.
- Sutlej. Training works on the Sutlej river. E. B. Medley, li. 364.

**RIVERS, JAPAN:**—Elevated beds of rivers in Japan. W. F. Potter, lvi. 10; H. Hayter, 16.

**RIVETS:**—On rivet-holes: (comparative time and power for punching and drilling.) Dr. Hartig, l. 275.

See *Strength* of simple constructions.

# **ROADS:—**

Historical notice of roads. Sir J. Rennie, v. 63.

Apparatus for measuring the comparative strength of broken stones, lvii. 331.

Cleansing. "On the advantages and economy of maintaining a high degree of cleanliness in streets and roads, with an account of the construction and operation of the street sweeping machines." J. Whitworth, vi. 431.

—Discussion: E. Chadwick, vi. 455; P. H. Holland, 460; J. Farey, 462.

—Economy of maintenance of roads by thorough cleansing. J. Mowlem Burt, lviii. 78.

—Saving effected by the use of the sweeping machine. J. P. Smith, xiii. 226.

"Construction of roads on deep bogs and moss." W. Bald, i. (1838), 50.

"Description of an instrument for describing the profile of roads." H. Carr, i. (1840), 56.

"— of an instrument for describing the profile of roads." H. Chapman, i. (1840), 86.

Hammer (size of) for breaking stones on roads. i. (1838), 50.

Hollow roads *versus* convex roads in Paris. H. B. Hederstedt, xxiv. 262.

"Improvement of the roads, rivers, and drainage of the counties of Great Britain." R. Sibley, i. (1841), 100.

Macadamised roads in towns. W. Taylor, ix. 230;—G. F. Deacon, lviii. 18, 30.

"— for the streets of towns." J. P. Smith, xiii. 221.—Discussion: J. P. Smith, 229, 231, 233, 237; C. E. Cawley, 230, 231; J. Whitworth, 231; W. Haywood, 231, 234, 236; H. Browne, 234; J. G. Appold, 235; N. Beardmore, 236; H. Wood, 236; G. Legg, 236; J. Baylis, 236; G. Burt, 237; J. Hawkshaw, 237; C. B. Vignoles, 237; J. Newlands, 238, 240; W. Taylor, 239; J. B. Redman, 240.

—Conditions for a good road. E. B. Ellice-Clark, lviii. 92.

—Asphalt-macadam roads, Derby. G. F. Deacon, lviii. 16.

—New York. E. P. North, lviii. 97, 98.

—Melbourne: Cost for steam-rolling. C. T. Hargrave, lv. 355.

—Cost. Montreal, Canada. P. W. St. George, lviii. 291; tables, 298–301.

—Size of stones, binding material, and mud. G. F. Deacon, lviii. 18, 30; T. Aveling, 54; H. S. Copland, 59; J. Lovegrove, 62; W. Shelford, 64; J. G. Lynde, 66; R. Rawlinson, C.B., 67, 78; G. H. Stayton, 74.

Maintenance and repair of roads in the metropolis. J. Lovegrove, lviii. 62;

table of cost for repair of streets in the metropolis by steam roller, 63;

G. H. Stayton, 74; J. Mowlem Burt, 79; E. B. Ellice-Clark, 92.

Mangaratiba road, Brazil. E. B. Webb, xix. 250, 251.

Resistance of smooth rigid wheels on roads. J. Head, xxxvi. 39.

"Tracing and construction of roads in mountainous tropical countries."

Major J. Browne, R.E., xxxviii. 67.

Tractional resistance on roads and streets. E. Chadwick, C.B., lviii. 69.

— of wide and of narrow wheels (on clay and on gravel). M. Pierret, lviii. 375.

**Roads—continued.**

Use of ohloride of calcium in watering public thoroughfares. A. Houzeau, xlv. 315.

Wear of roads. T. de Saint-Hardouin, xlix. 303.

"Australia (South), main roads of." (S.) C. T. Hargrave, l. 157.

Basses Pyrénées, road-making in the. M. Conte-Grandchamps, xxxix. 316.

Bengal Presidency, Grand Trunk road. Maj.-Gen. G. B. Tremenhare, xvii. 501. District roads, 505; H. Conybeare, 518.

India, roads in. G. Turnbull, xxxv. 429; J. E. Tanner, 435.

New Zealand, roads in Canterbury: Sumner Road: E. Dobson, xxix. 105, 107. Principal coach roads, 118.

Pernambuco, roads in. W. M. Peniston, xxii. 390, 391.

See *Pavements*.

**ROADS, COMMON, LOCOMOTION ON:—**

Historical notice. Sir J. Rennie, v. 77; E. A. Cowper, xxxvi. 97; F. Trevithick, 99.

Adhesion. J. Head, xxxvi. 39; H. Tresca, 60; D. Greig, 98.

Driving wheels. J. Head, xxxvi. 38, 81, 101; F. J. Bramwell, 86, 87; G. A. C. Bremme, 89. Differential gear, 68, 89.

Road-locomotives: table of details of. J. Head, xxxvi. 74.

— for military purposes. J. Head, xxxvi. 70.

Road-steamers in India. L. Olrick, lii. 173.

"Steam locomotion on common roads, rise and progress of." J. Head, xxxvi. 36. (7 plates.)—Discussion: J. Grantham, xxxvi. 80, 94; T. Aveling, 80; L. J. Todd, 81; F. J. Bramwell, 82; G. A. C. Bremme, 89; R. J. Quelch, 91; H. Gore, 91; D. Greig, 93; R. C. Ransome, 95; E. A. Cowper, 97; H. Chapman, 98; F. Trevithick, 99; W. F. Batho, 100; J. Head, 101.

— Gurney's (G.) steam-carriage, J. Head, xxxvi. 48. Hancock's steam-carriage, J. Head, xxxvi. 48, 83, 93; F. J. Bramwell, 82;—W. Hancock, l. 47. J. S. Russell's steam-carriage, J. Head, xxxvi. 49. R. W. Thomson's road-steamer, 50, 75. Nairn's steam-omnibus, 50. The 'Ravee,' by Ransomes, Sims, and Head, 51. Cugnot's locomotive, 97. R. Trevithick's locomotive, 99.

— The working cost of steam-omnibus traffic. Hr. Reeder, lvii. 344.

— Steam-locomotives on ordinary roads. (Aveling and Porter's, and Cail and Co.'s traction engines, in France.) M. de Retz, xlii. 317.

— Note on the steam-carriage of M. Bollée. H. Tresca, xliii. 382.

— Comparative cost of haulage by steam and by horses. J. Head, xxxvi. 76;—M. de Retz, xlii. 318.

Traction engine 'Sutherland.' J. Head, xxxvi. 46, 57, 88. Boydell's traction-engine, 55, 66. Bray's traction-engine, 55. Taylor's steam-elephant, 56. Tennant's road-locomotive, 56. Thomson's indiarubber-wheel engine, 56. Aveling and Porter's engine, 58, 71, 80;—M. de Retz, xlii. 317, 319. John Fowler and Co.'s engine: J. Head, xxxvi. 60, 71, 77, 78. Larmanjat's engine, 98, 101. Cail and Co.'s engine, M. de Retz, xlii. 318.

— as local carriers. G. W. Sutcliffe, lviii. 277.

**ROADS—ROAD-ROLLERS:—**

Bullock road-rollers, Calcutta. W. Clark, lviii. 95.

**Roads.—Road-rollers—continued.**

Cost of rolling macadamised streets in the metropolis. J. Lovegrove, lviii. 62; table, 63. Economy by its use: W. Clark, 95.

Steam road-roller, invention of, by W. Clark, lviii. 95.

— Construction and performance of steam road-rollers. Aveling and Porter's. J. Head, xxxvi. 62; Gellerat's road-roller, by Manning, Wardle, and Co., 63; Moreland and Son's road-roller, 64; W. T. Batho's road-roller, 100.

— Steam-rollers in America. E. P. North, lviii. 97.

Table of details of road-rollers. J. Head, xxxvi. 74.

**ROCK-DRILLS:—**

Rock-drills: Historical comparative analysis and performance of rock-drills. Dr. Hartig, xli. 264.

— On the application of mechanical means to the sinking of pits and the driving of tunnels in rock. A. Pernolet, xli. 263.

Bartlett's rock-drill worked by steam. G. Neumann, xxiii. 287; T. Bartlett, 288; E. A. Cowper, 297; O. H. Gregory, 300; F. W. Sheilda, 300; F. J. Bramwell, 304; J. Hawkshaw, 308; G. P. Bidder, 308; T. Sopwith, Jun., 310. Performance: T. Bartlett, 289, 290.

Brandt's rock-boring machine (Hydraulic rock-drill). F. Rziha, li. 342;— at Sonnstein tunnel, Prof. R. von Grimbürg, liii. 369.

— Results obtained. H. Hinterhuber, lvii. 405.

Conical splitting-screw for breaking rock or coal. R. Mallet, xxviii. 136; G. H. Phipps, 147.

Diamond drill by M. Leschot. F. J. Bramwell, xxiii. 305. Performance, 307.—Dr. Hartig, xli. 266.

— by Major Beaumont, R.E. G. J. Morrison, xxxvi. 16; Major Beaumont, 17, 19;—P. Neville, xxxviii. 25.

Dixon's rock-drill. J. Brunlees, xxiii. 319.

Dubois and François's rock-drill, at St. Gothard tunnel. D. K. Clark, xlii. 241, 246.

Ferroux's rock-drill, at St. Gothard tunnel. D. K. Clark, xlii. 242, 246; l. 239.

Harrison's (W. C.) rock-drill, xxiii. 317.

Ingersoll's rock-drill, xlix. 350.

Könyves-Tóth hand rock-drill. E. Wawra, lv. 414.

Low's (R.) rock-drill. P. Neville, xxxviii. 24.

MacKean drill, at St. Gothard tunnel. D. K. Clark, xlii. 244, 246.

MacKean drill, modified by M. Seguin, lvii. 242.

Maus's (Chevalier) rock-drill. R. P. Brereton, xxiii. 296.

Prospecting drills. W. W. Evans, 27.

Sach's rock-drill. Machine boring in shaft sinking, xlii. 292.

Schram and Mahler's rock-drill, liv. 303.

Sommeiller's rock drill, worked by compressed air. T. Sopwith, Jun., xxiii. 259, 262, 276, 282, 310; D. S. Sutherland, 293; T. Brassey, 295; E. A. Cowper, 296. Performance: T. Sopwith, Jun., xxiii. 262, 267, 269; D. S. Sutherland, 291, 294; at Mont Cenis tunnel, xxxvi. 10, 11, 17, 24, 34.

Turretini rock-borer, li. 342.

Belgian colliery, comparative trials of rock-drills, in a. H. Mativa, lv. 411.  
Dalkarlsberg mines, trial of rock-drilling machines at, liii. 370.

**Rock-drills—continued.**

Prussia, boring machines in, li. 344.

St. Gothard tunnel, comparative performance of rock-drills at, lvii. 243.

Schemnitz, use of boring machines at. L. Markus, xlii. 293.

Tincroft mine and Dolcoath mine, rock-drills worked by compressed air from the surface at. H. Robinson, xlix. 21.

United States drilling scow, East River, Rock-drilling under water. lviii. 385.

**ROOFS:—**

“Construction of a collar roof with arched trusses of bent timber at East Horsley Park.” Earl of Lovelace, viii. 282. (1 plate.)—Discussion: Earl of Lovelace, viii. 284; I. K. Brunel, 285; J. Walker, 286; C. B. Vignoles, 287.

Corrosion of coverings of roofs:—Painted iron. J. Simpson, xiv. 265; J. Strapp, 267. Galvanised iron: Sir C. Fox, xiv. 265, 266; C. H. Gregory, 266; C. May, 266; F. Woods, 267; H. Maudslay, 267; R. Turner, 268; J. Hawkshaw, 271. Tar-coated iron: R. Turner, xiv. 268.

Durability of galvanised iron roofs. J. Hawkshaw, xxiv. 19; C. H. Gregory, 25.

Costs (relative) of roofs of wide span and narrow span. R. J. Wood, xxvii. 433, 437; J. H. Porter, 435; J. W. Grover, 437; T. E. Harrison, 439; J. Hawkshaw, 439; J. W. Barry, 440; C. H. Gregory, 441.

Depth (proportion of) of roofs to span of large terminal stations: table. G. H. Phipps, xxx. 98.

“Description of the roof of Messrs. Simpson and Co.’s factory.” J. Boustead, ii. (1842), 91.

“— of the method of roofing in use in the Southern Concan in the East Indies.” Lieut. F. Outram. Communicated by Sir John Malcolm, G.C.B., (T.) i. 157.

“— of the methods adopted for raising and sustaining the sunken roof of St. George’s Church, Dublin.” R. Mallet, i. (1841), 92.

“— of the roofs over Buckingham Palace covered with Lord Stanhope’s composition.” P. Hogg, ii. (1843), 94.

“Flat roofs with earthenware pots, construction of.” F. W. Simms, i. (1838), 5.

Iron roofs. “Description of the iron roof, in one span, over the joint railway station, New Street, Birmingham.” J. Phillips, xiv. 251.—Discussion: E. A. Cowper, xiv. 264, 270; J. Fowler, 264, 268, 271; G. W. Hemans, 265; Sir C. Fox, 265, 266; J. Simpson, 265, 272; C. H. Gregory, 266; C. May, 266, 271; J. Strapp, 267; E. Woods, 267; H. Maudslay, 267; R. Turner, 268; J. Henderson, 268, 271; G. P. Bidder, 270; R. Stephenson, 270; N. Beardmore, 270; J. Hawkshaw, 271; Capt. Moorsom, 272.

— New Street station, Birmingham. Cost. E. A. Cowper, xxx. 103.

— “Description of two wrought-iron roofs over the building at Mr. Thomas Cubitt’s works, Thames Bank.” E. Adams, i. (1841), 96.

— Exhibition building of 1851: the Paxton roofing. M. D. Wyatt, x. 151.

— Railway station, Galway. G. W. Hemans, xiv. 265.

— Iron roof, Terrace pier, Gravesend. J. B. Redman, iv. 240.

— “Description of the iron roof over the railway, Lime Street, Liverpool.” R. Turner, ix. 204. (1 plate.)—Discussion: R. Turner, ix. 211; J. Locke, 212, 214; J. Pim, 213; R. B. Dockray, 213; J. E. Errington, 213.

**Roofs—continued.**

- Iron roofs. Tythebarn Street station, Liverpool. E. A. Cowper, xiv. 264.  
 — “Description of the iron shed at the London terminus of the Eastern Counties railway. W. Evill, iii. 288.  
 — at St. Pancras station: W. H. Barlow, xxxi. 78. Test model, 163.  
 Cost of the roof, xxvii. 432.  
 — lattice roof: Dock warehouse, Marseilles. T. Howe, xxiv. 154.  
 — Woolwich dockyard, building slip No. 4. E. A. Cowper, xiv. 264.  
 Load on roofs. J. W. Grover, xxvii. 437.  
 Mansard roof, iron Warren truss: Portalade gasworks. J. P. Paddon, xxxvii. 318.  
 “Planking, new mode of covering roofs with.” W. Cubitt, i. (1840), 68.  
 Space, most economical for roofs. O. Fox, xiv. 265.  
 Stresses, graphic method of calculating the, roof trusses. O. Spies, xxxix. 302.  
 Tiles for covering roof, Brazil. W. M. Peniston, xxii. 404; F. W. Shields, 415;—G. O. Mann, xxiv. 9.  
 Timber roof at the North Shields railway station, v. 230.  
 — Howe truss roof, Dunkirk station. New York and Erie railroad. J. R. Mosse, xxii. 317.  
 Weight of roofs of various spans. C. May, xiv. 266, 271; J. Fowler, 268, 271; John Henderson, 269, 271; G. P. Bidder, 270; R. Stephenson, 270; N. Beardmore, 270.  
 Zinc roofing, durability of. E. Clark, xxvii. 560, 578; J. N. Shoolbred, 568.

ROORKEE COLLEGE, Bengal Presidency. Gen. G. B. Tremenhare, xvii. 495.

**ROPE, manufacture of:—**

- “Description of a machine for sewing flat ropes.” E. Birch, i. (1841), 171.  
 “Huddart’s improvements in rope machinery.” W. Cotton, i. (1838), 1.  
 G. D. Dempsey, i. (1838), 38; E. Birch, i. (1838), 39; W. Cotton, ii. (1842), 57.

ROPES, hemp, wire ropes, and iron chains, comparison of the cost of, in relation to their strength. K. von Ott, xlv. 269.

**ROPES, TRANSMISSION OF POWER BY:—**

- Cast-steel drawing ropes, on the use of, in the Pfibram mines: (cast-steel ropes *versus* iron ropes.) E. Langer, xlvii. 402.  
 Hemp rope *versus* wire rope. J. Durie, 63.  
 — gearing. K. Keller, xlvii. 403.  
 — by J. Durie. H. Robinson, xlix. 24; G. R. Stephenson, 59; J. Durie, 62.  
 Rope-gearing, hemp or cotton, in large factories. G. W. Sutcliffe, lviii. 272.  
 Table of transmission of power by wire ropes, by W. A. Roebbling, xlix. 28; table by J. Durie, 62, 63.  
 Theory of the transmission of power by ropes. H. Resal, xxxix. 406.  
 Transmission and distribution of motive power by wire ropes. A. Achard, xli. 323; xlv. 267; xlix. 22.  
 — of motion by teledynamic cable, and by belt and pulley. L. Vigreux, xlv. 264.  
 — of mechanical power by wire rope, in a mill at Tortona. N. Ruggeri, i. 192.



Ropes, transmission of power by—*continued*.

Wire rope employed at mines in Portugal. J. L. Thomas, 54.

— in factories at Logelbach, Schaffhausen, and Fribourg. H. Robinson, xlix. 23.

See *Tramways*.

"ROYAL GEORGE," removal of the wreck of the. J. W. Heinke, xv. 319;  
Sir C. Pasley, 328, 329.

**RUBBLE**—General References:—

Historical notice of rubble masonry. J. Rennie, xvi. 423, 436; R. Rawlinson, 436.

Combination of ashlar and rubble, objections to. R. Rawlinson, xvi. 436;  
F. C. Penrose, 437.

Proportions of stone and mortar in rubble at Liverpool docks. R. Rawlinson, xxv. 115.

Rubble masonry for foundation of a bridge over the Ruhr at Düsser.  
Hr. Wiebe, lii. 306.

Rubble walls, Edinburgh. A. J. Adie, ii. (1842), 177.

Vacuity in heaps of rubble stone. J. M. Rendel, vii. 409;—J. Murray, xviii. 109;—L. F. Vernon-Harcourt, xxxvii. 73;—H. Hayter, xlv. 105.

**RUPERT'S**, Prince, drops. A. Pellatt, i. (1840), 39.

**SAFES**:—Fireproof safes. J. Braidwood, viii. 147; J. Chubb, 154; ix. 329.

**SAFETY LAMPS**. See *Coal Mines*, lighting.

**SALT**:—

Bitter Lakes, deposit of salt in the. J. Hawkshaw, xxvi. 453.

Goisern, deep boring at. C. von Balzberg, liv. 355.

Ilsaug, Bavaria, brine-pumping at. W. L. Baker, ii. (1842), 55.

Inourazlaw, description of the new salt works at. Hr. Besser, lvii. 424.

Proportion of salt in brine at a maximum of concentration. H. Mehner, xlv. 335.

Schönebeck, production of salt from borings at. H. Mehner, xlv. 332.

Wieliczka, experiments with rock-salt cutting machine at. A. Janota, l. 236.

**SAND**. Filling sand into wagons. J. Jackson, xxxvii. 90.

Flow of sand from vessels not affected by superincumbent pressure.  
H. Käferstein, lv. 353.

See *Foundations*; *Moisture*.

**SANDSTONE**. Blasting red sandstone. G. B. Lane, xi. 74.

**SAWDUST**, furnace for the combustion of. E. A. Cowper, xlviii. 100.

**SAWS**. See *Wood-working machinery*.

**SCAFFOLDING AND STAGING**:—

Aqueduct at Lisbon, scaffolding employed in building the. J. Clegg, jun., i. (1841), 139.

— Scaffolding for the Roquefavour aqueduct. M. Mont Rieher, xiv. 225.

**Scaffolding and staging—continued.**

Breakwater. Staging for Alderney breakwater. J. Jackson, xxxvii. 88.

— Staging for New South breakwater, Aberdeen harbour. W. D. Cay, xxxix. 130.

— Staging for Holyhead breakwater. D. Miller, xxii. 435;—H. Hayter, xlv. 105; cost, 112.

Bridge. Staging for the erection of Charing Cross bridge. H. Hayter, xxii. 514.

— Wire-rope staging, Clifton suspension bridge. W. H. Barlow, xxvi. 245, 251; J. Cochrane, 269.

— Staging for Dordrecht railway bridge. Sir J. G. N. Alleyne, xlii. 217.

— Staging for the erection of Queen Carola bridge over the Elbe, near Schandau. Hr. Hofmann, lv. 351.

— Staging for erecting Wylam bridge. W. G. Laws, lvi. 268.

Chimneys, scaffolding for constructing and repairing high. P. Journet, iii. 218.

— Scaffolding for repairing a chimney at Glasgow. J. Colthurst, iii. 223.

Gasholders, scaffolding for the construction of. M. Arson, xlv. 357.

Jetty. Staging or gantry for erecting the South jetty at Kustendjie. G. L. Roff, xxxix. 144.

Lighthouse. Cradle for moving Sunderland lighthouse. J. Murray, iii. 345.

'Nelson column,' "Account of the scaffolding used in erecting the Trafalgar Square." T. Grissell, iii. 203.—Discussion:—P. Nicholson, iii. 206; J. Harrison, 207; G. Rennie, 207; T. Grissell, 207; C. H. Smith, 208, 209; F. Giles, 208; C. Fowler, 208; J. J. Hawkins, 209; J. Colthurst, 209; J. M. Rendel, 209; J. Walker, 211, 214; Gen. Pasley, 211; J. Howkins, 212; J. Bremner, 213; — Gale, 214; J. Thomson, 214; T. Wicksteed, 214; Sir M. I. Brunel, 216; J. Allen, 216.

Paris. "Description of the system of scaffolding employed at Paris for the repairs of public buildings, obelisks, &c., and of a machine for raising bricks and other building materials." P. Journet, iii. 218.—Discussion: T. Grissell, iii. 222; J. Walker, 222.

Railway. Scaffolding employed in the erection of the iron roof at New Street railway station, Birmingham. J. Phillips, xiv. 259; E. A. Cowper, 264.

— Scaffolding used for erecting the eastern gateway of the London and Birmingham railway: P. Nicholson, iii. 206. For the Commemoration Column at Devonport: J. Colthurst, iii. 209. For the Malcolm Column: Maj.-Gen. Pasley, iii. 211. For the Monument, Fish Street Hill, by Sir C. Wren: Sir M. I. Brunel, iii. 216. Revolving scaffolding at the New Houses of Parliament: J. Allen, iii. 216.

Staging. Buoyancy of timber staging in water. D. Miller, xxii. 434.

Viaduct. Scaffolding for Hownes Gill viaduct. W. Cudworth, xxii. 48.

See *Centering*.

**SCREW-JACK:—**

"Description of a traversing screw-jack." W. J. Curtis, i. (1840), 60.

"Universal screw-jack." G. England, i. (1840), 60.

**SCREW MOORINGS. See Moorings.****SCREW PROPELLER:—**

Historical notice. G. Rennie, iii. 72; J. Farcy, 77;—Sir J. Rennie, v. 97;—G. B. Rennie, li. 103.

## Screw Propeller—continued.

- "Application of the screw propeller to the larger class of sailing vessels." R. A. Robinson, xiv. 375.—Discussion: see *Ships* and steam vessels: auxiliary steam-power.
- Archimedean screw, efficiency of, as a motor. W. Airy, xxxii. 43.
- "Dimensions and performance of the Archimedean steamer." G. Rennie, i. (1839), 70.
- "Archimedean screw propeller, or helix, of maximum work." Sir F. C. Knowles, Bart., xxxii. 219.—Discussion: W. Froude, xxxii. 232; A. Murray, C.B., 244; R. Griffiths, 245; F. J. Bramwell, 246, 251; W. Airy, 248, 251; C. G. Gumpel, 249; Admiral E. P. Halsted, 255; Admiral G. Evans, 256; G. H. Phipps, 257; Sir F. C. Knowles, 260.
- 'Archimedes' Trials with various screws. T. R. Guppy, iv. 156, 173.
- Bergue's (De) propeller. C. Manby, xiv. 415.
- Blades. Active portion of the blades for propulsion. J. S. Russell, xxiii. 347; F. J. Bramwell, 367.
- "Unequal placement of blades of screw propellers in American steam-boats. E. Reynolds, li. 14.
- Disposition of screw propellers in the hull. J. S. Russell, li. 25; R. Greaves, 37; T. May, 65.
- Double propeller applied to a canal boat by Jacob Perkins. J. J. Hawkins, iii. 84.
- 'Dwarf,' propeller of the. G. Rennie, iii. 73, 76; J. Smith (Deanston), 77.
- Efficiency of the screw. W. Griffiths, xvi. 345; Prof. G. B. Airy, 342.
- Feathering screw by Messrs. Maudslay, Sons, and Field. R. A. Robinson, xiv. 379; H. Maudslay, 393; Capt. Hays, 395; Capt. Halsted, R.N., 402.
- 'Great Britain.' Screw propeller. T. R. Guppy, iv. 158.
- Griffith's propeller: J. F. Spencer, xiv. 409; C. Manby, 415. Griffith's mode of feathering the blades. F. J. Bramwell, xxix. 190.
- Lifting-screw in ships of war. R. A. Robinson, xiv. 380; Mr. J. S. Russell's plan, 381; Capt. Halsted, R.N., 402; J. S. Russell, 412.
- 'Liverpool Screw,' "Account of some experiments on a vessel called the, fitted with Grantham's engines and Woodcroft's screw propeller." J. Grantham, iii. 71.—Discussion: G. Rennie, iii. 72, 76, 85; E. Galloway, 75, 80, 84, 86; J. Smith (Deanston), 77; J. Farey, 77; M. Norman, 78, 81; J. Samuda, 81; E. Cowper, 81; J. Grantham, 82, 85; F. Braithwaite, 83, 88; J. J. Hawkins, 84; C. Perkins, 85; Gen. Pasley, 86; G. Cottam, 86; S. C. Homersham, 88; J. Simpson, 88; J. B. Jordan, 88.
- Merits of the screw propeller. A. Holt, li. 3; R. Bruce Bell, 34.
- 'Napoleon.' Trial of Smith's screw. T. R. Guppy, iv. 158; J. Barnes, 165; P. Taylor, 170.
- "Propeller of the. J. Farey, iii. 77; M. Norman, 78.
- 'Princeton,' engines and propeller of the. F. Braithwaite, iii. 83.
- Principles of form and construction. J. Grantham, iii. 71, 82, 85; G. Rennie, 73; E. Galloway, 75, 80; M. Norman, 79, 81; Jacob Samuda, 81; E. Cowper, 81.
- 'Rattler.' Trials of the 'Rattler.' F. P. Smith, iv. 172.
- 'Sarah Sands,' "Description of the, and other steam vessels fitted with direct-acting engines and screw propellers without intermediate gearing." J. Grantham, vi. 283. (3 plates.)—Discussion: J. Grantham, vi. 289, 296;

Screw propeller—*continued*.

J. Field, 291, 292, 297; G. Rennie, 292; R. B. Grantham, 293; B. Woodcroft, 293; Capt. Smith, R.N., 294; J. Laming, 294.

Screw propeller. G. Kapp, xli. 330.

—*versus* paddles. J. Grantham, iii. 72; E. Galloway, 75;—R. Armstrong, xvi. 330; C. Atherton, 336; Prof. G. B. Airy, 344;—J. R. Ravenhill, li. 51.

Single screws *versus* twin screws. J. R. Ravenhill, li. 56.

Slip of screw propellers. E. Galloway, iii. 75; G. Rennie, 76; J. Grantham, 82.

Theory of screw propellers. C. Szily, li. 398.

U.S. steam launch No. 4, experiments with different screws applied to the. B. F. Isherwood, xliii. 384.

See *Ships* and steam vessels—auxiliary steam power.

SCREW THREADS:—"On an uniform system of screw threads." J. Whitworth, i. (1841), 157.—Discussion: J. Field, i. (1841), 160; S. Seaward, 160; J. Walker, 160.

SCREWS, feeding. B. Moreland, Jun., xxxii. 61.

## SEA:—

Bed of sea, surveys of. Admiral Fitzroy, xx. 60. Nature of bed, 62.

Bottom of sea, instrument for exploring. J. Bethell, xv. 333.

Charts. On the principles of construction of charts: J. Murray, xx. 314, 370; J. G. C. Curtis, 347; G. P. Bidder, 374. North sea: J. Murray, xx. 315, 336. Murray frith, 323; J. S. Russell, 341. Ocean charts: G. W. Hemans, xx. 362.

Composition of sea water. J. B. Huntington, xii. 514.

Movement of the sea, viewed in its hydraulic relation to ports and shores.

A. Cialdi, xlvii. 364.

Natural slope of the sea shore. G. Rennie, ii. (1842), 126; H. R. Palmer, 129; General Pasley, 130.

Temperature of the sea: Persian gulf. Sir C. T. Bright, xxv. 12.

"Travelling of sea beaches." (S.) G. H. Kinahan, lviii. 281.

Algeria. Survey for an inland sea in Algeria, xlix. 339.

Bay of Saint-Jean-de-Luz. M. Bouquet de la Grye, xlv. 295.

Cromarty frith. J. Murray, xx. 323.

Dornoch frith. J. Murray, xx. 323.

English coast. "Observations on the causes that are in constant operation tending to alter the outline of the English coast, to affect the entrances of the rivers and harbours, and to form shoals and deeps in the bed of the sea." J. T. Harrison, vii. 327.—Discussion: see the same paper, *Coast*, English.

Forth (Frith of). J. S. Russell, xx. 341, 346; W. A. Brooks, 345, 355; A. Giles, 345, 347; R. W. Jackson, 354; J. Murray, 365.

Inverness frith. J. Murray, xx. 327.

'Mediterranean Current.' A. Cialdi, xlvii. 365.

Murray frith. J. Murray, xx. 323, 327.

"North Sea, with remarks on some of its friths and estuaries." J. Murray, xx. 314. (3 plates.)—Discussion: G. P. Bidder, xx. 335, 344, 371; J. Murray, 336, 362; J. T. Harrison, 337; J. S. Russell, 341, 344, 346;

*Sea—continued.*

- W. A. Brooks, 345, 355; A. Gilea, 345, 347; Capt. Burstal, R.N., 346, 362; J. C. Curtis, 347; R. W. Jackson, 351, 362; Capt. Moorsom, 356; J. B. Redman, 356; A. Bremner, 358; P. Bruff, 358; R. Rawlinson, 360; T. Hawksley, 361; G. W. Hemans, 361.
- North sea, shoaling of, by the waste of the east coasts of Scotland. J. Murray, xx. 320, 570; J. T. Harrison, 340; P. Bruff, 358.
- Dogger bank. J. Murray, xx. 322, 368; G. P. Bidder, 336, 373; J. T. Harrison, 338; A. Gilea, 345; Capt. Burstal, R.N., 346, 362; R. W. Jackson, 351, 353, 362; R. Rawlinson, 360.
- Great stream of flood from the Atlantic through the North Sea. J. Murray, xx. 315, 362, 365; R. W. Jackson, 351; J. B. Redman, 356.
- Bed of the North sea. J. T. Harrison, vii. 332.
- See *Coast*, English; *Shingle*, Movements of; *Waves*.

**SEA DEFENCES :—**

- "Caaks, description of the, used for floating large stones, to construct sea walls in deep water." J. Bremner, iii. 122.
- Embankments with fascines, proposed construction of. J. W. Bazalgette, i. (1840), 48.
- Fascine work or "arming" on the English coast. Sir J. Rennie, vi. 121; J. B. Redman, 123;—W. H. Wheeler, xlv. 61; W. Shelford, 74; J. N. Shoolbred, 77.
- "at the outfalls of the Fen rivers, and reclamation of the foreshore." W. H. Wheeler, xlv. 61.
- "Sea defences constructed with peat moss." The Hon. M. Stuart, i. (1841), 140.
- Sea walls of rubble and peat backing, for reclamation of land. The Hon. M. Stuart, i. (1841), 141.
- Cranz, works for the protection of the sea-coast at: (groynes, retaining wall, and breakwater of fascines). H. Herzbruch, li. 377.
- Devon (South) railway, sea-walls. Maj.-Gen. Pasley, vii. 192; I. K. Brunel, 192.
- Dymchurch wall. "Account of the Dymchurch wall, which forms the sea defences of Romney Marsh." J. Elliott, Jun., vi. 466. (2 plates.)—Discussion: Capt. D. O'Brien, vi. 478; J. B. Redman, 481.
- reparation: J. Green, vii. 194; M. A. Borthwick, 195. "Arming" of Dymchurch wall. J. Green, vii. 194, 195.
- Furness railway, embankments. J. R. McClean, vii. 201.
- Holland. Historical notice of the sea-dykes. Chev. F. W. Conrad, ii. (1842), 172. Cost of the works. J. Paton, xxi. 446.
- Use of seaweed in the construction of sea dykes. J. Macneill, i. (1841), 132; ii. (1842), 128.—J. Paton, xxi. 443.
- Construction of embankments with fascine work. G. B.W. Jackson, vi. 95.
- "On the use of fascines in the public works of Holland." (S.) T. C. Watson, xli. 158. (2 plates.)
- Progress of works at the Hoek van Holland. A. Verweg, xlix. 348.
- Lyttleton, Canterbury, N.Z. Sea wall. E. Dobson, xxix. 111.
- Morecambe Bay. Embankments. J. Brunlees, xviii. 142.
- "On the construction of the sea embankments across the estuaries Kent and Leven in Morecambe Bay, for the Ulverstone and Lancaster railway."

Sea defences—*continued*.

J. Brunlees, xiv. 239, 246; xxi. 482.—Discussion: J. Brunlees, xiv. 246, 249; G. W. Hemans, 247; J. Brogden, Jun., 249; J. Simpson, 250.

Penmaenmawr. Sea wall. R. Stephenson, vi. 115.

— "Account of the sea walls at Penmaenmawr, on the line of the Chester and Holyhead railway." H. Swinburne, x. 257.—Discussion: R. Stephenson, x. 274, 276; Capt. W. S. Moorsom, 274, 276; W. Parkes, 276; G. Rennie, 276; W. Cubitt, 276; J. A. Lloyd, 277.

Schleswig and Holstein, sea dykes of. Historical notice. J. Paton, xxi. 428, 448 to 453; C. B. Vignoles, 478.

— "and on reclaiming land from the sea." J. Paton, xxi. 426.—Discussion: see Paper by J. H. Muller, on reclaiming land. (*Reclamation of land*.)

Swansea. Embankment for the construction of south dock. J. Abernethy, xxi. 314.

See *Breakwaters*; *Groynes*; *Piers*; *Reclamation of land*.

SEA DEFENCES—PRINCIPLES OF FORM; VERTICAL WALLS *versus* LONG SLOPES:—

"Account of the effects of the storm of the 6th of December, 1847, on four sea walls or bulwarks of different forms on the coast near Edinburgh, as illustrating the principles of the construction of sea defences." W. J. M. Rankine, vii. 186. (1 plate.)—Discussion: Gen. Pasley, 192, 198; I. K. Brunel, 193; J. Green, 194; M. A. Borthwick, 195; J. M. Rendel, 196, 198; J. S. Russell, 196; J. Thomson, 197; J. F. Bateman, 198; J. Murray, 199; W. J. M. Rankine, 199; C. H. Smith, 200; J. R. McClean, 201; Dean of Westminster, 202; J. Walker, 202.

Breakwaters. "Observations upon the sections of breakwaters as heretofore constructed, with suggestions as to modifications of their forms." Lieut.-Col. H. D. Jones, R.E., ii. (1842), 124.—Discussion: see *Breakwaters*.

— "Practical forms of breakwaters, sea walls, and other engineering works, exposed to the action of waves." J. S. Russell, vi. 135.—Discussion: see *Breakwaters* (p. 22).

Curved *versus* straight slopes. J. Brunlees, xiv. 244: experiments to determine the best inclination, 245.

Principles of the form of sea defences. M. Scott, xviii. 76, 81; T. R. Winder, 91; General Sir H. Jones, 99, 119; G. Rennie, 101; N. Beardmore, 102; J. Murray, 104; R. Mallet, 112; J. Hawkshaw, 118; G. P. Bidder, 122; Sir J. Rennie, 133; G. Rennie, 135; J. Brunlees, 142; W. B. Hays, 144; A. J. Robertson, 148;—M. Scott, xix. 647; J. S. Russell, 653; J. G. C. Curtis, 657; J. Hawkshaw, 662; J. Abernethy, 663;—J. Brunlees, xxi. 481; G. W. Hemans, 483;—J. Abernethy, xliv. 123; Sir J. Hawkshaw, 123; H. Hayter, 125.

Vertical walls *versus* long slopes. Lieut.-Col. H. D. Jones, ii. (1842), 124; G. Rennie, ii. (1842), 127; H. R. Palmer, 129; W. Bull, 131;—Sir J. Rennie, v. 38;—Sir J. Rennie, vi. 122, 128; I. K. Brunel, 124; J. G. C. Curtis, 125; J. S. Russell, 129, 132, 140; J. Murray, 144;—W. J. M. Rankine, vii. 190, 200; Maj.-Gen. Pasley, 192, 411; I. K. Brunel, 193; J. Green, 195; J. M. Rendel, 196; J. S. Russell, 196; J. Thomson, 197; J. F. Bateman, 198; C. H. Smith, 200; J. R. McLean, 201; J. Walker, 202, 398;—Earl of Lovelace, vii. 380; J. S. Russell, 414;—R. Stephenson, x. 274.—D. Miller, xxii. 429.

**SEA WORM (*Teredo navalis*):—**

Account of marine worms. J. Paton, ix. 27-34; Dr. Buckland, 43, 47; W. Newton, 45; L. Reeve, 49.

See *Timber*—Decay.

**SELENIUM:—**

Influence of light on conductivity of crystalline selenium. W. Siemens, xliii. 437. Influence of heat and light on the electrical conductivity of selenium and some metals. W. Siemens and G. Hausemann, lii. 400.

Occurrence of selenium in fine silver. H. de Bray, xlvii. 396.

**SEWAGE:—**

Commissioners of sewers: historical notice. R. B. Grantham, xix. 84.

Composition of sewage water. W. Merry, xxii. 298; R. Rawlinson, 298.

Discussion on pollution of rivers, town drainage, and sewage, xx. 232.

Pumping sewage by means of compressed air, at Windsor, xlix. 21.

"Sewage question." C. N. Bazalgette, xlviii. 105; xlix. 175. (2 plates.)—

Discussion: C. N. Bazalgette, xlviii. 160, 236; Gen. H. Y. D. Scott, 160; W. Crookes, 163; Lieut.-Col. Jones, 174, 221; C. E. Austin, 176; W. Hope, 179; J. B. Denton, 181; Dr. Frankland, 188; W. C. Sillar, 198; R. Field, 205; C. Morton, 209; Prof. D. T. Ansted, 212; A. Scott, 215; J. Abernethy, 217; R. D. M. Littler, Q.C., 219; W. Shelford, 221, 234; J. N. Shoolbred, 224; Sir J. W. Bazalgette, 225; J. Lemon, 235.

"Sewage question." (S.) xlix. 175.—Discussion on Mr. Bazalgette's Paper: T. W. Keates, xlix. 175; J. Wrightson, 177; G. E. Eachus, 178; Capt. L. Flower, 179; Prof. H. Tanner, 180; J. Newton, 182; B. S. Brundell, 182; H. Robinson, 184; J. C. Melliss, 185; W. Atkinson, 187; J. Mansergh, 189; Dr. Voelcker, 191; R. Hassard, 194; A. Jacob, 196; Dr. Pole, 197; R. W. P. Birch, 198; J. B. Alliot, 201; R. Aitken, 203; W. Donaldson, 204; M. Mille, 213; J. Brunlees, 213; C. F. Gower, 214; C. N. Bazalgette, 216.

"Treatment of town sewage." A. Jacob, xxxii. 371. (2 plates.)—Discussion: Dr. H. Letheby, xxxii. 395; B. Latham, 397, 399; J. W. Bazalgette, 399; Dr. A. Voelcker, 399; E. Chadwick, C.B., 401; J. Newton, 404; B. Denton, 405; A. Jacob, 406, 418; G. W. Hemans, 407, 417; W. Hope, V.C., 407; R. Rawlinson, C.B., 411; F. W. Shields, 414; C. E. Austin, 416; W. C. Sillar, 417; C. B. Vignoles, 419.

**SEWAGE, COMPOSITION AND DECOMPOSITION OF:—**

Decomposition of sewage by putrefaction, and by eremacausis or oxidation.

T. Hawkaley, xix. 127; xx. 250; W. T. Haly, 241.

Decomposition of sewage. A. Smee, xxvii. 23.

Barking farm, composition of sewage at xlviii. 124.

Dantzic Irrigation Works, chemical composition of the sewage liquid, and of the effluent water of the. O. Helm, xlv. 276.

Paris sewage, nature of the. C. Lauth, xlix. 348.

— Analysis of. F. Target, liii. 207.

**SEWAGE, DEODORISATION OF:—**

Ammoniacal salts. On the production of ammoniacal salts from sewage liquids. L. Krafft, xlvii. 359.

Cesspools, deodorisation of. Dr. Buckland, vii. 92.

*Sewage, deodorisation of—continued.*

"Clear water." T. Hawksley, xx. 233, 250; J. B. Denton, 240.

Deodorising fluids for manure:—Chloride of zinc, by Sir William Burnett : Dr. Buckland, vii. 92; Dr. Ure, 98. Nitrate of lead, by M. Ledoyen : Dr. Ure, vii. 98. Oxide of iron and of manganese, by Mr. Brown : Dr. Ure, vii. 98.

Deodorisers. Dry earth : G. R. Redgrave, xlv. 138; Lieut.-Col. A. S. Jones, 180. Ashes : G. R. Redgrave, 138, 139; Alderman Taylor, 178. Animal charcoal : G. R. Redgrave, 140. McDougal's fluid : T. Hawksley, xx. 234, 250; R. Rawlinson, 237; D. Drummond, 239. McDougal's fluid at Croydon : T. Hawksley, xx. 233, 234; J. Fenton, 235.

Water plants, absorbents of sewage. C. E. Austin, 179.

See *Sewage irrigation*.

**SEWAGE FILTRATION :—**

Absorbing power of soils. Dr. Lissauer, xlvii. 354.

Circulation of water through the soil. B. Latham, xxxv. 172.

Intermittent downward filtration : C. N. Bazalgette, xlviii. 125. Laboratory experiments on downward filtration, 127; J. B. Denton, 182; Dr. Frankland, 191;—G. E. Eachus, xlix. 179; Capt. L. Flower, 180; B. S. Brundell, 184.

— at Merthyr Tydvil. Sir J. W. Bazalgette, xliii. 210;—C. N. Bazalgette, xlviii. 131, 245. Proportion of impurity removed, 138. Adoption of the system : J. B. Denton, 183. Financial results, 185; Dr. Frankland, 194. Plan of the system : H. Law, 201. History : R. Field, 205; plan, 207. Performance, C. Morton, 209;—A. Jacob, xlix. 196.

— at Kendal. C. N. Bazalgette, xlviii. 140; B. Denton, 185; R. Field, 206, 209, 211; Sir J. W. Bazalgette, 232; J. Lemon, 235; B. Latham, 246;—Dr. Pole, xlix. 197.

Rationale of its action, and experimental results. Dr. Frankland, xlviii. 192;—Dr. Voelcker, xlix. 190; G. Hassard, 195.

Soils fitted for it. Dr. Frankland, xlviii. 193;—Dr. Voelcker, xlix. 193.

Treatment of sewage by filtration. A. Jacob, xxxii. 377, 387;—R. W. P. Birch, xlix. 199.

**SEWAGE INTERCEPTION :—**

Cesspools. E. Chadwick, xxiv. 339.

— in Paris. H. B. Hederstedt, xxiv. 265; R. Rawlinson, 318; J. Lemon, 351.

Dry-earth system. Sir J. Bazalgette, xliii. 212.—G. R. Redgrave, xlv. 138; Lieut.-Col. Jones, V.O., 180;—C. N. Bazalgette, xlviii. 143. Moule's earth closet, 145. Conclusions, 147; Prof. D. T. Ansted, 212.

Goux's system, xlv. 135, 181. Rochdale, 135, 136, 140, 203; Alderman Taylor, 177, 178.

Land carriage *versus* water carriage, at Munich, li. 383.

Middens. A. Jacob, xxxii. 371;—G. R. Redgrave, xlv. 132.

— Tunnel middens at Liverpool, xlv. 133.

— Midden privy at Nottingham. G. R. Redgrave, xlv. 133; Stamford, 133; Burnley, 134; Manchester, 134; Hull, 134.

Pail closets at Nottingham, xlv. 134; Leeds, 134, 135; Bilston, 134, 196; Stockport, 135; Edinburgh, 136.

— with deodorisation, Manchester : G. R. Redgrave, xlv. 138. Separation



**Sewage interception—continued.**

- of liquids and solids, Dr. Bond's system : G. R. Redgrave, 139. Moser's "Universal closet," 139; Gibson's system, 139.
- Pail closet system. D. T. Ansted, xlviii. 212.
- Separation of solids. C. E. Austin, xlv. 187; xlviii. 177. "Tinettes filtres," Paris : F. Target, liii. 202, 203, 204.
- "Sewage interception systems, or dry sewage processes." G. R. Redgrave, xlv. 130. (3 plates.)—Discussion: see W. Shelford's Paper on precipitation of sewage (*below* p. 287).
- Straining the sewage, Croydon. T. Hawksley, xx. 249, 250.
- Treatment of sewage by interception : C. N. Bazalgette, xlviii. 143. General conclusions, 158, 248.

**SEWAGE IRRIGATION:—**

- Conclusions of the government referees on the main drainage question : W. T. Haly, xx. 245. Conclusions of the engineers to the Board of Works, 246.
- Hygienic studies on the absorbing power of soils. Dr. Lissauer, xlvii. 354.
- Influence of sewage irrigation on the health of men and animals. W. T. Haly, xx. 242; T. Hawksley, 249. Milan : W. T. Haly, xx. 244.
- Principal value of sewage irrigation. C. N. Bazalgette, xlviii. 124. C. Morton, 210.
- Sewage *versus* water for irrigation. C. N. Bazalgette, xlviii. 124, 160; Dr. Frankland, 191; W. Atkinson, xlix. 187.
- Sewage irrigation. J. Smith (Deanston), vii. 87, 89; S. M. Peto, 94; E. Chadwick, 95;—T. Hawksley, xx. 233, 234;—A. Jacob, xxxii. 380;—T. Hawksley, xxxiii. 347;—J. Abernethy, xliii. 208; Sir J. W. Bazalgette, 210;—Lt.-Col. A. S. Jones, xlv. 180; Sir J. W. Bazalgette, 194; G. E. Eachus, 199; Dr. J. H. Gilbert, 201;—C. N. Bazalgette, xlviii. 122. General conclusions, 159, 239; W. Crookes, 164, 168; Lt.-Col. Jones, at Wrexham, 174; W. Hope, at Birmingham, 180; at Romford, 180; Dr. Frankland, 190;—Prof. H. Tanner, xlix. 180; W. Donaldson, 204.
- Value of land and produce under sewage irrigation : T. Hawksley, xx. 234. Craigentiny meadows, Edinburgh : T. Hawksley, xx. 234; R. Rawlinson, 236; W. T. Haly, 243. Leicester : W. T. Haly, xx. 242. Croydon : W. T. Haly, xx. 242. Stanley Green : vegetable produce. C. Greaves, xx. 248.
- Altrincham sewage farm. J. Newton, xlix. 182.
- Banbury. Cost of irrigation, Banbury, &c. W. Donaldson, xlix. 208.
- Barking farm, composition of effluent at. C. N. Bazalgette, xlviii. 124;—T. W. Keates, xlix. 177.
- Bombay. B. Aitken, xlix. 203.
- Craigentiny meadows, Edinburgh : J. Smith (Deanston), vii. 88; Dr. Buckland, 93; C. Greaves, xx. 248. Analysis of soil of Craigentiny meadows, Edinburgh : Dr. Voelcker, 192. Analysis by D. Campbell, 200.
- Croydon. J. Fenton, xx. 236; W. Drummond, 239; W. T. Haly, 243; T. Hawksley, 249.
- Broad irrigation, xliii. 210.
- Dantzic. The results of sewage irrigation at Dantzic. Dr. Lissauer, xlv. 279.
- Doncaster sewage farm. B. S. Brundell, xlix. 183.
- Glasgow, farm, near. J. Smith (Deanston), vii. 90.

Sewage irrigation—*continued*.

- London, project for utilising the sewage of. T. Wicksteed, vii. 90, 102.  
 — disposal of the sewage of. C. Fowler, xiii. 107; G. P. Bidder, 109;  
 C. Manby, 118.  
 Mansfield. Portland's (Duke of) estate. J. Smith (Deanston), vii. 89;  
 Dr. Buckland, 93.  
 Paris. Utilisation of the sewage water of Paris for agricultural purposes.  
 A. Durand-Claye, xxxix. 880.  
 — Plain of Gennevilliers. F. Target, liii. 208, 210; produce, 211, 327;  
 cost, 211.  
 — The utilisation of sewage. A. Durand-Claye, liii. 326.  
 Stanley Green. W. T. Haly, 242; C. Greaves, 247.  
 Watford. W. T. Haly, 243.  
 Wrexham and Crewe, relative costs of sewage irrigation at. H. Robinson,  
 xlix. 184; J. Mansergh, 189; R. W. P. Birch, 198.

## SEWAGE MANURE:—

- A B C process. W. Shelford, xlv. 144, 146, 158, 203; O. Rawson, 167;  
 Sir J. W. Bazalgette, 194;—C. N. Bazalgette, xlviii. 114.  
 Campbell's process. W. Shelford, xlv. 149, 162–165; Dr. Voelcker, 170.  
 Analysis of the manure. W. Shelford, 150.  
 Comparative cost of processes, 159, 180, 182, 186, 197, 199, 203, 204.  
 — value and efficiency of sewage manures. J. Wrightson, xlix. 177.  
 Direct application of sewage to the soil. E. Chadwick, xxiv. 335;  
 J. W. Bazalgette, 353.  
 Dried night-soil, Banbury. R. Aitken, xlix. 203.  
 Excrement of animals, analysis of. Dr. Ure, vii. 99.  
 Lime process, Leicester. W. T. Haly, xx. 241; T. Hawkaley, 250;—  
 Gen. Scott, xlv. 175; Sir J. W. Bazalgette, 192.  
 Manufacture of 'Poudrette.' Dr. Buckland, vii. 94.—Poudrette, by the  
 Liernur process, xlviii. 155.  
 — of manures from dry sewage. G. R. Redgrave, xlv. 141, 142; Dr.  
 Voelcker, 162; Gen. Scott, 174; Alderman Taylor, 178; A. Smee, 186.  
 Milburn's drying machine. W. Shelford, xlv. 152, 156; R. Milburn, 196;—  
 J. C. Melliss, xlix. 186.  
 "Native guano" (A B C process), its manurial value: W. Crookes, xlviii.  
 169. At Crossness, 171. Cost of its production, 171; W. C. Sillar, 198.  
 Pail-system, with 'concretor' and 'destructor,' at Manchester. J. B. Alliott,  
 xlix. 201.  
 Phosphate sewage process, 169, 172.  
 Prices of manures, 166.  
 Production of sewage manure at Coventry; J. C. Melliss, xlix. 185.  
 — of sewage manures. T. W. Keates, xlix. 175.  
 Sewage sludge *versus* farm-yard manure. Lt.-Col. Jones, xlviii. 175;—  
 J. C. Melliss, xlix. 187.  
 Sludge, direct utilisation of, by digging it in. T. W. Keates, xlix. 175.  
 Sulphate of alumina and milk of lime, by the General Sewage Manure  
 Company at Coventry. C. N. Bazalgette, xlviii. 115; W. Crookes, 167.  
 Town Manure Company's process, xlv. 196.  
 Treatment of night-soil, Paris. H. B. Hederstedt, xxiv. 265.  
 Utilisation of sewage as manure. F. Braithwaite, vii. 101;—J. Evans,

Sewage manure—*continued.*

xx. 237;—R. Rawlinson, xxii. 294;—E. Chadwick, xxiv. 334, 335; Sir J. W. Bazalgette, 357. Salisbury: E. Chadwick, 334. Opinions of Frankland, Krepp, and Corfield, xlviii. 120. Whitthred's process, 155.

## SEWAGE PRECIPITATION:—

A B C, or Sillar's process—alum, blood, clay process—by the Native Guano Company: A. Jacob, xxxii. 374. At Leamington: C. N. Bazalgette, xlv. 144. At Crossness, 144, 194. At Leeds, 167;—C. N. Bazalgette, xlviii. 111; W. Crookes, 168. At Crossness: C. N. Bazalgette, 112; W. Crookes, 169; Sir J. W. Bazalgette, 233. At Leeds: C. N. Bazalgette, 114; W. Crookes, 169, 172. At Bolton: W. Crookes, 172.

Anderson's process—sulphate of alumina and milk of lime process—by the General Sewage Manure Company. At Nuneaton and at Coventry: J. C. Mellis, xlv. 179; xlix. 185;—C. N. Bazalgette, xlviii. 115; W. Crookes, 167.

Bird's process, by Bird's Sewage Company, at Cheltenham and Stroud. C. N. Bazalgette, xlviii. 118.

Campbell's process—phosphate of lime and lime process. W. Crookes, xlviii. 166.

— at Tottenham. W. Shelford, xlv. 149; Battersea Fields, 150. At Battersea: C. N. Bazalgette, xlviii. 118. At Leamington, 119.

Goodall's process by the Clarifying and Utilisation of Sewage Company, at Leeds. C. N. Bazalgette, xlviii. 118.

Hille's process at Edmonton: G. E. Eachus, xlix. 178. At Tottenham: Capt. L. Flower, xlix. 179. Relative cost of Hille's process and lime process, 180.

Lime process. A. Jacob, xxxiii. 373;—Gen. H. Y. D. Scott, xlviii. 160. Manufacture of cement, 162; W. Crookes, 166; Dr. Frankland, 189; H. Law, 204.

— at Leicester: T. Hawkeley, xx. 233; S. C. Homersham, 235; W. T. Haly, 241;—C. N. Bazalgette, xlviii. 108. Lime process, Leicester and Birmingham: Sir J. Bazalgette, xliii. 211. Lime process at Birmingham, 108; Dr. Frankland, 197; J. Lemon, 235.

Phosphate of alumina, by the Phosphate Sewage Company, at Tottenham: A. Jacobs, xxxii. 375; C. N. Bazalgette, xlviii. 115. Analysis of the effluent, 116. At Lodge farm, Barking, 116. The effluent, 117. Its composition, 124. At Hertford, 117;—T. W. Grindle, xlv. 169.

Sewage tanks. Prof. H. Tanner, xlix. 181.

'Salmon ladder' mixer. W. Shelford, xlv. 152, 155.

Treatment of sewage by precipitation. T. Wicksteed, xii. 89, 90;—A. Jacob, xxxii. 372;—T. Hawkeley, xxxiii. 347;—J. Abernethy, xliii. 206;—W. Shelford, xlv. 144, 205; A. Smee, 184; J. Abernethy, 188; Sir J. W. Bazalgette, 193; J. Lemon, 196; Dr. J. H. Gilbert, 200; E. Monson, 214;—C. N. Bazalgette, xlviii. 106, 158; W. Crookes, 166, 173; Dr. Frankland, 188.

"Treatment of sewage by precipitation." W. Shelford, xlv. 144. (1 plate.) —Discussion on this Paper and G. R. Redgrave's Paper on sewage interception (p. 285): C. Rawson, 167; T. W. Grindle, 169; Dr. Voelcker, 169; C. Walford, 171; E. Meyerstein, 171; Gen. H. Y. D. Scott, 174;

**Sewage precipitation—continued.**

Alderman Taylor, 177; J. C. Melliss, 178; Lieut.-Col. A. S. Jones, 180; Dr. Haviland, 181; A. M. Fowler, 182; A. Smee, 183; H. Law, 186; C. E. Austin, 187; J. Abernethy, 188; Sir J. W. Bazalgette, 191; Vice-Admiral Sir F. Nicolson, 195; J. Lemon, 195; R. Milburn, 196; E. Monson, 197; R. Aitken, 198; G. E. Eachus, 199; Dr. J. H. Gilbert, 199; G. B. Redgrave, 201; W. Shelford, 203.

Utilising the drainage (washings) from cloth factories by precipitation. Dr. Landolt and Prof. Stahlschmidt, xl. 320.

Whitthread's process—phosphates of lime and milk of lime process—at Romford and Tottenham. W. Shelford, xlv. 155.—C. N. Bazalgette, xlviii. 119.

**SEWAGE SLUDGE**, moisture in. W. Shelford, xlv. 153, 204;—T. W. Keates, xlix. 175.

Filters of screened ashes for sludge: W. Shelford, xlv. 152, 156. Needham and Kite's filters, 156.

**SEWERS; SEWERAGE:—**

Historical notice. Sir J. Rennie, v. 61.

History of sewerage. "The sewage of the City of Westminster, described and delineated." J. E. Jones, i. (1839), 63.

Cross section of drains. A. Frühling, xli. 254.

Formula for the flow of sewage in pipes. T. Hawksley, xi. 418.

Gradients of sewers. Dr. v. Hack, xli. 317.

Inclination of self-cleansing sewers. J. W. Bazalgette, xxiv. 355.

Junctions of sewers. E. Chadwick, xxiv. 333.

Large sewers *versus* small sewers. W. Haywood, xxiv. 321, 325; J. Hawkshaw, 329; E. Chadwick, 333; J. F. Bateman, 340.

Liernur, or pneumatic system: C. N. Bazalgette, xlviii. 147. At Leyden, 149. At Amsterdam, 153. At Dordrecht, 155: A. Scott, 215; Sir J. W. Bazalgette, 234.

Limits of inclination of sewers. R. Rawlinson, xxiv. 319.

Proper sections and dimensions for sewers. R. Rawlinson, xxiv. 317; J. Lemon, 351.

Required velocity of flow in sewers. J. W. Bazalgette, xxiv. 290.

Ruling principles for laying out, and for dimensions and construction of sewers: A. Williams, xxii. 276, 277, 303; R. Rawlinson, 286, 291, 293, 298; J. Newton, 295; W. Merry, 297; J. C. Curtis, 300; J. Hawkshaw, 304.

Brighton. Construction of sewers. J. G. Gamble, xliii. 199; J. Grant, 220.

Dundee. Particulars of brick sewers. J. Fulton, xxii. 264, 267, 272.

Junction of sewers. J. Fulton, xxii. 266, 268; R. Rawlinson, 290, 293.

Discharge of sewers. J. Fulton, xxii. 266; R. Rawlinson, 285.

Liège sewers. M. Mottart, lvi. 343.

London. Metropolitan Commissioners of Sewers, General Board of Health. G. P. Bidder, xiv. 289; T. Hawksley, 290, 291.

— Dimensions, sections, and falls of sewers. J. W. Bazalgette, xxiv. 294, 295, 297, 298, 299, 301, 305, 306, 307, 308. Bricks and mortar used in construction, 313. Wrought-iron sewer aqueduct, 297.

**Sewers, Sewerage—continued.**

- London. Examples of sewers in the main drainage of London and the Albert Embankment. J. Grant, xxii. 275.  
 Newport. Brick sewers. A. Williams, 278, 303; R. Rawlinson, 291.  
 New York. Particulars of brick sewers. F. C. Curtis, xxii. 300.  
 Paris. Dimensions, sections, and inclination of sewers. H. B. Hederstedt, xxiv. 263, 269, 278; J. W. Bazalgette, 315; R. Rawlinson, 318; J. Lemon, 351.  
 — types of sewers. F. Target, liii. 195. Siphon-sewer, 198.  
 Rome, Cloaca Maxima. xxiv. Plate 15.  
 — improvement of sewerage. A. Vescovali, xl. 307.  
 Stuttgart. Inclination and construction of sewers. Dr. v. Hack, xlv. 317.  
 West Ham, main outlet sewer. R. Rawlinson, xxii. 290.  
 Windsor Castle. Dry-weather river-outfall. R. Rawlinson, xxii. 288.  
 See *Drainage of towns*; *Water*, flow of, through pipes.

**SEWERS—CLEANSING AND FLUSHING:—**

- Cleansing sewers: flushing apparatus. J. Roe, ii. (1842), 132.  
 — by hand-labour. Paris: H. B. Hederstedt, xxiv. 264.  
 — by mechanical appliances; boats, trucks, &c. H. B. Hederstedt, xxiv. 265; W. Haywood, 326;—F. Target, liii. 196, 199.  
 — and flushing sewers. Derby: T. C. Thorburn, xxii. 284; R. Rawlinson, 292, 293. London and Richmond: J. Grant, 299.  
 Clearing apparatus for drains, Dundee. J. Fulton, xxii. 270; R. Rawlinson, 286; J. Lovegrove, 301.  
 Flushing *versus* clearing apparatus. J. Lovegrove, xxii. 301.  
 — of sewers, Brighton. H. Hayter, xliii. 204, 223; Capt. Galton, 205.  
 Silting and scour of sewers. Dundee. J. Fulton, xx. 200;—J. Newton, xxii. 296.  
 System of flushing sewers, Liège. M. Mottart, lvi. 344.

**SEWERS—VENTILATION, STREET GULLIES:—**

- Combination of ventilator and manhole. Newport: A. Williams, xxii. 280.  
 Combined manhole and ventilator, with charcoal filters. R. Rawlinson, xxii. 287, 291, 292; J. Grant, 290.  
 — Metropolitan main drainage, south side: with charcoal filter. J. Grant, xx. 299.  
 Disinfection of sewer gases with charcoal. R. Rawlinson, xxiv. 319.  
 General principles of ventilation. J. Fulton, xxii. 271; A. Williams, 280; T. C. Thorburn, 284; R. Rawlinson, 285, 287, 291, 292; J. Lovegrove, 302; J. Hawkahaw, 304;—T. Hawkaley, xxxiii. 346;—J. Hanvey, xliii. 222.  
 Gullies, leading principles of. J. Lovegrove, xxii. 302, 303.  
 — Street gullies, Stuttgart. Dr. V. Hack, xlv. 317.  
 — Gully-grate, cesspool, and drain, for streets. Dundee: J. Fulton, xxii. 262; J. Lovegrove, 302. Newport: A. Williams, 282. Preston: J. Newton, 295.  
 Temperature in sewers. London: W. Haywood, xxiv. 325. Paris, 325.  
 Trap-valve at outfalls of sewers. Newport: A. Williams, xxii. 276.  
 Aberdeen: J. Abernethy, xliii. 208.  
 Ventilation of Brighton sewers. J. G. Gamble, xliii. 195, 202; H. Hayter,

Sewers—ventilation, street gullies—*continued*.

204, 223; G. R. Redgrave, 205; R. W. P. Birch, 206; T. E. Harrison, 206; E. Monson, 213; J. Aird, 216; P. C. Lookwood, 218, 219.

Ventilation. Dundee. J. Fulton, xxii. 271, 284; T. C. Thorburn, 284; R. Rawlinson, 285.

— London. R. Rawlinson, xxiv. 318; W. Haywood, 325; J. Grant, 343.

— Paris: W. Haywood, xxiv. 325; J. Lemon, 350;—F. Target, liii. 198.

See *Drainage of towns*.

SHAFT-SINKING. See *Boring, &c.*; *Coal-mines*—*Shaft-sinking*; *Coal mining*; *Mines*; *Wells*.

SHAFTING:—

Frictional resistance of shafting. R. Davison, ii. (1843), 79;—H. Robinson, xlix. 22; B. Walker, 47.

Shafting in sections. G. R. Stephenson, xlix. 59.

— at the Centennial exhibition. W. H. Barlow, xlix. 52.

— G. W. Sutcliffe, lviii. 260, 265; couplings, 262; pedestals, 263; wall-boxes, 264; speed, 266; pulleys, 272.

Transmission of power by shafting. H. Robinson, xlix. 22.

SHINGLE, movements of, on the English coast:—

Movements of shingle. H. R. Palmer, ii. (1842), 129;—P. Giles, iv. 321;—W. Cubitt, V.P., vi. 133; J. S. Russell, 133; J. Simpson, 145;—J. B. Redman, xi. 162; Capt. Sir E. Belcher, 208; Capt. O'Brien, 206, 219; J. S. Russell, 212, 221; J. Wilson, 213; J. Wright, 214; W. B. Adams, 215; J. Price, 216; Mr. Deane, 217, 219;—J. Cooda, xii. 528, 537, 542, 554; G. P. Bidder, 548; Sir J. Rennie, 549; J. Gibbs, 552; G. Rennie, 552; Capt. Fitzroy, R.N., 553;—Sir G. B. Airy, xxiii. 227; C. H. Gregory, 229; Sir J. Rennie, 231.

“Travelling of sea beaches.” (S.) G. H. Kinahan, lviii. 281.

Dover. Gen. Sir H. Jones, xviii. 100.

East coast. J. B. Redman, xxiii. 186; Capt. Burstal, R.N., 235; J. S. Russell, 237; Sir G. B. Airy, 237, 239; J. Cooda, 239, 252; P. Bruff, 242; J. S. Valentine, 249.

Harwich harbour. J. G. C. Curtis, xx. 21.

North Sea. J. T. Harrison, vii. 334, 340, 355, 362; G. Rennie, 361; Earl of Lovelace, 375; J. Walker, 400.

Romney Marsh. Capt. D. O'Brien, vi. 479.

See *Coast, English*.

SHIPS AND STEAM VESSELS—auxiliary steam-power:—

“Application and use of auxiliary steam power, for the purpose of shortening the time occupied by sailing ships upon distant voyages.” S. Seaward, i. (1841), 63.—Discussion: S. Seaward, i. (1841), 68, 72; G. Mills, 69, 70; J. Walker, 70; J. Field, 70, 71; C. B. Vignoles, 70; J. Parkes, 71; W. Cubitt, V.P., 71.

“— of the screw propeller to the larger class of sailing vessels.” R. A. Robinson, xiv. 375.—Discussion: G. P. Bidder, 390, 416; Capt. Hoseason, R.N., 390, 406; Capt. Asa Eldridge, 391, 406; H. Maudslay, 393; H. Wimsurth, 394; C. Atherton, 394, 399; Capt. Hays, 395; T. R. Crampton, 396; Capt. Claxton, 396; R. A. Robinson, 398, 414; Capt.

Ships and steam vessels—auxiliary steam-power—*continued*.

- Halsted, R.N., 400; Capt. Martin, 403; E. E. Allen, 405; J. W. Bazalgette, 406; J. Simpson, 406; A. Henderson, 408; J. F. Spencer, 409; T. Saunders, 410; J. S. Russell, 410; C. Manby, 415.
- Auxiliary power applied to trading schooners with screw propellers, by Messrs. Pim, of Hull. Mr. Pim, iv. 177; F. P. Smith, 178. Performance, 178.
- steam power. Capt. Hosken, iv. 178.—A. Henderson, vi. 487;—Admiral Sir E. Belcher, K.C.B., xxix. 175, 177; F. J. Bramwell, 187, 190; Capt. J. Selwyn, 196.
- 'Earl of Hardwick,' auxiliary-power ship. S. Seaward, (T.) iii. 398, 402, 404-407.
- "Supplementary account of the use of auxiliary steam power on board the 'Earl of Hardwicke,' and the 'Vernon,' Indiaman." S. Seaward, i. (1841), 129.
- Failure of auxiliary steam vessels. A. Holt, li. 9; J. S. Russell, 22. Performance; J. R. Ravenhill, 53.
- 'Great Britain.' See *Ships and Steam-vessels*: Iron ships (*below*).
- "Memoir on the practicability of shortening the duration of voyages, by the adaptation of auxiliary steam power to sailing vessels." S. Seaward, (T.) iii. 385.
- Most economical speed for auxiliary screw ships. Capt. Hoseason, R.N., xiv. 390.
- Table of data for auxiliary screw ships. R. A. Robinson, xiv. 389.
- 'Vernon,' auxiliary-power ship. S. Seaward, (T.) iii. 394, 399, 402.
- See *Screw-propeller*.

## SHIPS AND STEAM-VESSELS—BALLAST:—

- Bag water-ballast, by Dr. D. B. White: E. E. Allen, xiv. 329, 365; L. E. Fletcher, 349, 353; R. Stephenson, 349; J. Croome, 351; J. S. Russell, 362.
- Ballast heaps, near Shields. C. Greaves, xlix. 187.
- Bottom water-ballast. E. E. Allen, xiv. 333; J. Croome, 350, 351, 353, 355, 366; A. Henderson, 352; Hodson's system, 352; J. S. Russell, 362; C. M. Palmer, 365; E. Humphrys, 369; R. Stephenson, 372.
- Hold-water, or midship-compartment ballast, by J. S. Russell. E. E. Allen, xiv. 334, 353; R. Stephenson, 349, 372; J. Croome, 351, 353; J. F. Spencer, 352; J. S. Russell, 363.
- Sand ballast. E. E. Allen, xiv. 328.
- Tank water-ballast. E. E. Allen, xiv. 335.
- White's (Dr.) ballast-pump. E. E. Allen, xiv. 331, 332.

## SHIPS AND STEAM VESSELS—IRON SHIPS:—

- Historical notice. Sir J. Reunie, v. 96;—J. Field, vii. 39;—G. B. Rennie, li. 104.
- American steamers. Mr. Blunt, i. (1837), 21.
- India. Light-draught vessels for river navigation in India: A. Henderson, xvii. 533. Table of steamers, tugs, and tow boats, 535.
- Iron ships. J. Grantham, xxi. 198.
- *versus* wooden ships. Captain Masters, vi. 304;—Proportion of, length

**Ships and steam vessels—Iron ships—continued.**

- to breadth: A. Holt, li. 8; J. D'A. Samuda, 13; C. W. Merrifield, 17; C. Lamport, 20; Capt. Bedford Pim, 47; J. R. Ravenhill, 51; W. H. White, 125.
- Ocean steamships. J. Grantham, xxix. 143; J. D'A. Samuda, 161; C. Wigram, 163, 167; G. R. Stephenson, 167; J. R. Ravenhill, 168; Capt. J. C. Hoseason, 173; Capt. Saunders, 177; A. Murray, 181; T. A. Rochussen, 182; F. J. Bramwell, 187, 191.
- Steel hulls *versus* iron hulls. C. Lamport, li. 21; G. H. Phipps, 50; J. R. Ravenhill, 55; A. Holt, 78; W. H. White, 127.
- "Tabular statement of the dimensions and proportions of forty iron vessels." Lieut. E. N. Kendall, i. (1841), 146.
- Twin-screw steam-tender employed for the building of the great Basses lighthouse at Ceylon. W. Douglass, xxxviii. 58.
- Wear of the hulls of iron vessels. E. W. de Russett, xxvii. 575.
- Weight of ships. See previous heading.

- 'Great Britain.' "Description of the 'Great Britain,' iron steam ship; with an account of the trial voyages." T. R. Guppy, iv. 151.—Discussion: G. Barnes, iv. 165, 171; T. R. Guppy, 166; Capt. Hosken, 166, 169, 175, 177, 178; Capt. Sir C. Napier, 166, 168; J. Miller, 167; T. R. Guppy, 169, 176; R. Stephenson, 170; Sir J. Rennie, 170, 180; P. Taylor, 170; F. P. Smith, 171, 173, 175, 178; Capt. Crispin, 172; J. G. C. Curtis, 173; F. Braithwaite, 176; J. S. Russell, 176; J. Pim, 177; J. Field, 178.
- Discussions: xiv. 384, 389, 398, 402, 403, 407, 415.
- failure of, as an auxiliary steam-vessel. A. Holt, li. 9; J. R. Ravenhill, 53.
- 'Great Eastern.' A. Henderson, xiii. 15, 37; G. P. Bidder, 46.
- 'Josephine.' "Account of the iron barque 'Josephine,' of Liverpool, launched January 1845." Capt. Masters, vi. 297.
- 'Leviathan' steam vessel for the railway ferry across the Forth, Edinburgh, Perth, and Dundee railway. W. Hall, xx. 381.
- 'Napier' steam vessel for the railway ferry across the Tay, Edinburgh, Perth, and Dundee railway. W. Hall, xx. 383.
- 'Vanguard.' "Description of the 'Vanguard,' iron steam vessel, after being ashore on the rocks in the cove of Cork." J. Grantham, iv. 302.—Discussion: J. Miller, 305; T. R. Guppy, 306; C. B. Vignoles, 306; R. Mallet, 306.

**SHIPS AND STEAM VESSELS—PERFORMANCES:—**

- "Approximative rule for calculating the velocity with which a steam vessel will be impelled through still water by the exertion of a given amount of mechanical power, or forcible motion by marine steam engines." J. Farey, (T.) i. 111.
- 'Archimedeon.' "On the dimensions and performances of the 'Archimedeon' steamer." J. Rennie, i. (1839), 70.
- Performance of the 'Archimedes' with Smith's screws and Woodcroft's screws. T. R. Guppy, iv. 156; F. P. Smith, 178.
- 'Belgian,' results of trials of the. W. Laird, xxix. 203.
- "Communication between London and Dublin." W. Watson, xxii. 574.—Discussion: J. S. Russell, xxii. 596; J. D. A. Samuda, 596; R. P. Brereton, 597; E. A. Cowper, 597; W. Watson, 597, 602; G. H. Phipps,



Ships and steam vessels—performances—*continued*.

- 598; E. Humphrys, 598; A. J. Robertson, 600; T. Hawksley, 600; J. S. Russell, 601.
- ‘Connaught,’ performances of the, &c., paddle steamers, London and Dublin communication. W. Watson, xxii. 591, 595; J. D.A. Samuda, 598; E. Humphrys, 598; A. J. Robertson, 600.
- ‘Du Trembley,’ steamer, worked with steam, and worked with combined vapour. G. Rennie, xviii. 253.
- ‘Europe,’ results of trials of the, and the ‘Afrique.’ W. Brook, xxix. 197. Formula for locomotive capabilities of steam ships. C. Atherton, xiii. 41, 53.
- ‘Great Eastern.’ Performances. C. Atherton, xxiii. 352; G. P. Bidder, 359.
- ‘Napoleon,’ performance of. T. R. Guppy, iv. 158; J. Barnes, 165; P. Taylor, 170.
- Performance of steamships:—‘Himalaya’ screw, and ‘Atrato’ paddle-wheel: R. Armstrong, xvi. 330. H.M.S. ‘Desperate’: J. Dinnen, 333; H.M.S. ‘Retribution’ paddle-wheel: E. Humphrys, 338, 363. ‘Candia’ and ‘Pera’ screws (Peninsular and Oriental Company): G. Rennie, 341. ‘Anglia,’ ‘Cambria,’ and ‘Scotia,’ Chester and Holyhead railway Company’s steamers: J. E. McConnell, 346, 348; table, 347. Screw steam-vessels, by Admiral Moorsom: J. E. McConnell; table, 351. H.M.S. ‘Fury,’ paddle-wheel, and ‘Terrible’: E. Humphreys, 361.
- of the ‘Admiral,’ ‘Callao,’ and ‘Thetis,’ steam ships: W. J. M. Rankine, xviii. 274. H.M.S. ‘Desperate’: J. Dinnen, 275, 276. H.M.S. ‘Dee,’ 276.
- of ‘Banshee,’ ‘Llewellyn,’ and ‘Victoria and Albert.’ W. Watson, xxii. 595.
- Power and speed of propulsions of steam ships: formulæ. C. Atherton, xxiii. 350. ‘Great Eastern,’ 352; T. Hawksley, 357; G. P. Bidder, 359; Prof. W. J. M. Rankine, 368.
- Propulsion of boats by electro-magnetic power, at St. Petersburg, by Prof. Jacobi, xvi. 390. At Falmouth: R. Hunt, xvi. 401; W. R. Grove, 404.
- Ratio of speed to power. R. Armstrong, xvi. 327, 365; J. S. Russell, 331; J. Dinnen, 333; C. Atherton, 334; E. Humphrys, 338; J. Samuda, 341; G. Rennie, 341; G. P. Bidder, 342, 368; Prof. G. B. Airy, 343; R. Griffiths, 344.
- Rolling of ships. Vice-Admiral Bourgois, lii. 407.
- Observation on rolling and pitching, made with the double oscillograph on board different vessels. L. E. Bertin, lviii. 436.
- ‘Sahel’ and ‘Oasis.’ “On the performance of the screw steam-ship ‘Sahel,’ fitted with Du Trembley’s combined-vapour engine, and of the sister ship ‘Oasis,’ fitted with steam engines worked expansively, and provided with partial surface-condensation.” J. W. Jamieson, xviii. 233. (1 plate.)— Discussion: see *Marine engines and boilers*.
- Steering screw steamers. R. Greaves, li. 35; T. Moy, 65.
- Table of the velocities of steam ships. J. Seward, (T.) iii. 408.
- of relative power and speed in steam vessels. W. Cubitt, i. (1841), 72.
- Tables of voyages of steam ships. R. A. Robinson, xiv. 384, 386, 414.
- Voyages of sailing ships. R. A. Robinson, xiv. 382, 414; Capt. A. Eldridge, 391, 406; Capt. Claxton, 396; Capt. Hoesason, R.N., 406; A. Henderson, 408.
- See *Hydraulic propeller*; *Screw propeller*; *Steam navigation*.

## SHIPS AND STEAM VESSELS—RAISING SUNKEN SHIPS:—

'Innisfail.' "An account of the plan employed for raising the 'Innisfail' steamer, sunk in the river Lee, near Cork." G. P. White, iii. 286.

'Red Rover.' Raising the 'Red Rover' by lighters. J. Bethell, xv. 337.

## SHIPS AND STEAM VESSELS—REPAIRING PLATFORM:—

"Description of a new arrangement for raising ships of all classes out of water for repair: proposed to replace the graving-dock, or the patent slip in certain situations; with observations upon the other methods used at different periods for this purpose." R. Mallet, ii. (1842), 135.—Discussion: J. M. Rendel, ii. (1842), 136; J. J. Hawkins, 126, 136; H. R. Palmer, 136; A. Gordon, 137; J. Walker, 137.

Repairing 'gridirons.' A. Gordon, ii. (1842), 137.

See *Docks*, dry or graving.

## SHIPS AND STEAM VESSELS—RESISTANCE:—

Apparatus for determining resistance offered to ships, by experiments on their models. A. Lettieri, xlvii. 407.

Dynamometrical resistance of ships. J. I. Thornycroft, li. 29; W. Froude, 38, 49; G. H. Phipps, 49; T. Moy, 64.

Formulae for resistance of ships. J. S. Russell, xvi. 352; T. Hawksley, 355, 359; xxii. 600;—G. H. Phipps, xxiii. 329; T. Hawksley, 354.

Frictional skin resistance of vessels passing through water. C. Atherton, xvi. 336; G. H. Phipps, 337, 360; T. Hawksley, 355, 356; F. J. Bramwell, 361; G. P. Bidder, 368;—W. Watson, xxii. 602;—G. H. Phipps, xxiii. 329, 332. J. Colthurst's experiments, 339; T. Hawksley, 354, 356, 358.

Influence of the condition of the surface on resistance of ships. G. H. Phipps, xxiii. 328; T. Hawksley, 353, 356; T. Ditchburn, 360; F. J. Bramwell, 367; Prof. W. J. M. Rankine, 368.

— Influence of the form of the hull on resistance of ships in water: G. H. Phipps, xxiii. 334, 373. J. Colthurst's experiment, 337, 339, 340; J. S. Russell, 345; tables, 348, 349; table of experiments by the Academy of Sciences, Paris, 346; C. Atherton, 351; T. Hawksley, 356; T. Ditchburn, 366. Experiments: E. A. Cowper, 361; W. Gravatt, 362; F. J. Bramwell, 364; Prof. W. J. M. Rankine, 369.

"Relation between the velocity and the resistance encountered by bodies moving in fluids." J. M. Heppel, v. 266.—Discussion: J. S. Russell, v. 271, 279, 280, 286, 299; G. Rennie, 273; J. Walker, 277; G. P. Bidder, 278, 280; J. Spiller, 279; R. Stephenson, 280; I. K. Brunel, 285; G. Berkley, 288; P. W. Barlow, 289; S. C. Homersham, 289; J. Farey, 289; M. Ricardo, 297.

"Resistance to bodies passing through water." G. H. Phipps, xxiii. 321. (2 plates.)—Discussion: G. H. Phipps, xxiii. 340, 369; J. M. Heppel, 341; W. G. Armstrong, 342; J. S. Russell, 344; C. Atherton, 350; T. Hawksley, 353; G. P. Bidder, 358; T. Ditchburn, 359; E. A. Cowper, 361; W. Gravatt, 363; W. C. Rickman, 364; F. J. Bramwell, 364; Prof. W. J. M. Rankine, 368.

— of vessels in water; J. S. Russell, xvi. 332, 352; C. Atherton, 335, 336; G. H. Phipps, 337; J. Samuda, 340; G. P. Bidder, 342; T. Hawksley, 355; A. Henderson, 363;—T. Ditchburn, xxiii. 359. Experiments, 360.

Ships and steam vessels—Resistance—*continued*.

- Resistance of water to flat plates passing through it. C. T. Bright, xvii. 302; J. L. Clark, 312; G. P. Bidder, 333.
- of water to moving bodies, Beaufoy's experiments. G. H. Phipps, xxiii. 322, 328, 369; R. Armstrong, 342; J. S. Russell, 345; T. Hawksley, 354.
- of the 'Leinster.' G. H. Phipps, xxiii. 329, 332; F. J. Bramwell, 366.
- of the 'Atrato.' G. H. Phipps, xxiii. 338, 340, 371; T. Hawksley, 356.
- of H.M.S. 'Warrior.' Prof. W. J. M. Rankine, xxiii. 369.
- due to soakage of wood-built steamers. T. Ditchburn, xxiii. 360.
- Skin resistance of ships *versus* that of pipes. G. H. Phipps, xvi. 360; T. Hawksley, 360;—G. H. Phipps, xxii. 598; T. Hawksley, 600; J. S. Russell, 601;—G. H. Phipps, xxiii. 329, 331, 372; J. M. Heppel, 341; T. Hawksley, 353, 355; F. J. Bramwell, 366.

## SHIPS AND STEAM VESSELS—SCREW COLLIERIES:—

- "Comparative cost of transit by steam and sailing colliers, and on the different modes of ballasting." E. E. Allen, xiv. 318, 369.—Discussion: L. E. Fletcher, xiv. 349, 353; R. Stephenson, 349, 371; E. E. Allen, 349, 353, 363, 369, 373; J. Croome, 350, 353, 355, 366, 369; A. Henderson, 352; J. F. Spencer, 352; R. W. Jackson, 355, 358; N. Beardmore, 356; J. Fowler, 358; J. Hawkshaw, 359; J. S. Russell, 360; C. M. Palmer, 365; G. P. Bidder, 367; E. Humphrys, 369; H. Wimshurst, 370; T. R. Crampton, 370.
- Construction of screw colliers. J. S. Russell, xiv. 360.
- 'Connector,' a segmental ship. J. F. Delany, xxvi. 40.
- Depreciation of screw colliers. G. P. Bidder, xx. 390.
- Performance of screw colliers. J. Murray, xvii. 406.

## SHIPS AND STEAM VESSELS—SHEATHING:—

- Broad-headed metallic nails. J. B. Hartley, i. (1840), 85;—R. Davison, ii. (1842), 91.
- Copper. "Historical account of copper sheathing for vessels." J. J. Wilkinson, ii. (1842), 65.—Discussion: G. Lowe, ii. (1842), 67; J. Horne, 68; Lieut. Oldfield, 68; J. Bethell, 68; J. Purkes, 68, 69; J. I. Hawkins, 68; J. Taylor, 69.
- Corrosion of, prevention of, by Sir Humphry Davy. J. J. Wilkinson, ii. (1842), 66;—E. Galloway, iii. 86.
- Wear of. Capt. Selwyn, R.N., xxi. 534; C. W. Siemens, 539.
- Action of sea-water on. Dr. Percy, xlviii. 74.
- "Iron sheathing, broad-headed nails, and inner sheathing for ships." J. J. Wilkinson, ii. (1842), 168.
- broad-headed nails. J. Calvert, xxiv. 35.
- Iron 'protectors' for copper sheathing. Admiral Fitzroy, xx. 61.
- "Lead sheathing for ships." J. J. Wilkinson, i. (1841), 132.
- Protection of ships' hulls. R. Mallet, ii. (1842), 176.
- "Wood sheathing for ships, historical account of." J. J. Wilkinson, i. (1841), 98.
- Zinc sheathing for vessels, durability of. J. N. Shoolbred, xxvii. 569

## SHIPS AND STEAM VESSELS—WEIGHT, MEASUREMENT, CONSTRUCTION, REPAIR, &amp;c.—

- Brazilian timbers suitable for shipbuilding. G. O. Mann, xxiv. 13.

**Ships and steam vessels—weight, measurement, construction, repair, &c.—**  
*continued.*

- Constructive proportions of steam vessels. C. Atherton, xiv. 399; J. F. Spencer, 410.
- "Description of the steamship 'India,' with a table of the proportions of large steam ships." Lieut. E. N. Kendall, i. (1840), 50.
- Fixed bulkheads, introduced by Sir Samuel Bentham. J. Field, iv. 178.
- Form of hull: wave lines. J. S. Russell, xxiii. 347; G. P. Bidder, 358; E. A. Cowper, 361; W. C. Rickman, 365; F. J. Bramwell, 365.
- of vessels. 'America' sailing yacht. W. C. Rickman, xxiii. 364.
- of hulls with regard to profitable employment of ships. W. Shute, li. 123.
- Formula for size of chain cable. J. R. Napier, xvi. 308.
- Introduction of water-tight bulkheads, by C. W. Williams. C. B. Vignoles, ii. (1843), 179; C. W. Williams, 179.
- Large ships *versus* small ships. J. S. Russell, xiii. 50; C. Atherton, xxiii. 352.
- "Speed and other properties of ocean steamers, and the measurement of ships for tonnage." A. Henderson, xiii. 1. (1 plate.)—Discussion: A. Slate, xiii. 31; A. Henderson, 31, 33, 54, 57, 61, 63; Capt. Fitzroy, R.N., 31, 62; J. M. Rendel, 32, 60; R. Roberts, 39; C. Atherton, 40, 53, 62; Capt. Hoseason, R.N., 45, 53, 54; G. P. Bidder, 46, 55, 63; J. S. Russell, 50, 54, 61; C. Manby, 55; G. Rennie, 56; A. Gordon, 62; C. B. Vignoles, 62.
- Table of hemp cables and chain cables suitable for vessels. T. Dunn, xvi. 301.
- Trenails for ships. C. May, xvii. 44.
- Ventilating pumps for ships, &c. Dr. N. Arnott, x. 47.
- Ventilation of the transport 'Annamite.' L. E. Bertin, iv. 441.
- Weight of ships. E. Clark, xxv. 304; F. J. Bramwell, 316; G. B. Rennie, xxxi. 308, 312, 313; H. E. Towle, 314.
- See *Steam navigation*; *Tugboats*.

**SHIPS, STEAM—GOVERNMENTAL RELATIONS:—**

- Government inspection of steam-ships. A. Holt, li. 9, 10, 76, 129; J. D'A. Samuda, 12; E. Reynolds, 16; C. W. Merrifield, 18; T. Gray, 28; D. MacIver, 31; R. Bruce Bell, 34; R. Greaves, 37; G. H. Phipps, 50; J. R. Ravenhill, 54; J. L. K. Jamieson, 64; J. McF. Gray, 70; W. Brock, 83; D. Hebson, 96; F. C. Marshall, 101; P. Samson, 111, 119; R. V. J. Knight, 134.
- Postal subsidies, for steam-ships. A. Holt, li. 9, 75; J. D'A. Samuda, 14; C. Lamport, 20; J. S. Russell, 25; R. Greaves, 36; J. R. Ravenhill, 53; Adml. Selwyn, 57; E. de Rusett, 87.
- Shipowners. A. Holt, li. 8; J. S. Russell, 22.

**SHIPS OF WAR:—**

- Broadside iron-clads. "End-on" firing. Capt. T. E. Symonds, R.N., xxvi. 221.
- Characteristics and construction of model ships of war. G. P. Bidder, Jun., xx. 398-401, 504, 518; G. P. Bidder, 406, 505; J. S. Russell, 419, 423; Com. R. Scott, R.N. 426; J. D'A. Samuda, 427; Capt. W. S. Moorsom, 540.

## Ships of war—continued.

- Classification for ships of war. Vice-Admiral Elliot, xxvi. 202; Admiral Sir E. Belcher, 222.
- Comparative table of the English and French armour-plated fleets. Capt. Halsted, R.N., xxi. 238.
- Floating battery for coast defence, proposed. J. D'A. Samuda, xxi. 192.
- Form and construction of hull. J. D'A. Samuda, xxi. 189, 194, 253; J. Ditchburn, 194; R. Roberts, 194; J. S. Russell, 195; G. Turner, 201; Admiral Sir G. Sartorius, 205; F. W. Shields, 206; Admiral Sir E. Belcher, 214; Admiral Fitzroy, 221; Capt. B. Pim, R.N., 226; P. Thornton, 228; W. A. Brooks, 232; Capt. Halsted, R.N., 234; J. Brunlees, 241; G. P. Bidder, 248.
- Iron *versus* wood. G. P. Bidder, Jun., xx. 396; J. D'A. Samuda, 428; H. Conybeare, 458.
- "Forms and materials for iron-plated ships, and the points requiring attention in their construction." J. D'A. Samuda, xxi. 187.—Discussion: J. D'A. Samuda, xxi. 194, 199, 249; J. Ditchburn, 194; R. Roberts, 194; J. S. Russell, 195; J. Grantham, 198; G. H. Phipps, 200; G. Turner, 201; Admiral Sir G. Sartorius, 202; F. Wentworth-Shields, 206; E. A. Cowper, 207; R. P. Brereton, 209; J. Gibbs, 210; Sir J. D. Hay, 212, 223; Admiral Sir E. Belcher, 214; Admiral Fitzroy, 219; W. Fairbairn, 223; Capt. B. Pim, R.N., 225; P. Thornton, 227; R. Taylerson, 229; W. A. Brooks, 232; Capt. Halsted, R.N., 232; G. W. Hemans, 240; J. Brunlees, 240; W. Pole, 241; G. Clarke, 243; G. P. Bidder, 245; J. Hawkshaw, 253.
- General principles of construction. G. H. Phipps, xxi. 200; W. Fairbairn, 223; R. Taylerson, 229; W. A. Brooks, 232; G. W. Hemans, 240.
- Gunboat with hydraulic propeller, plan of. Vice-Admiral Elliot, xxvi. 206.
- Monitor system. J. Bourne, xxvi. 167, 176, 230; J. S. Russell, 182; Capt. J. Selwyn, 184; N. Barnaby, 186; E. J. Reed, 191; F. J. Bramwell, 198; T. A. Rochussen, 200; Vice-Admiral Elliot, 204; Capt. Scott, R.N., 208; Capt. T. E. Symonds, R.N., 219; J. Bourne, 238.
- Navies of Great Britain, Russia, and France. Admiral W. S. Moorsom, xx. 452.
- Necessary qualifications of iron-plated ships of war. J. D'A. Samuda, xxi. 187, 249; G. H. Phipps, 200; G. Turner, 201; P. Thornton, 227; R. Taylerson, 229; G. P. Bidder, 246;—T. Hawksley, xxxiii. 337.
- Screw line-of-battle ships, defects of. W. Conybeare, xx. 458.
- "Ships of war." J. Bourne, xxvi. 166. (2 plates).—Discussion: J. Bourne, xxvi. 180, 228; E. J. Reed, 180, 187; J. S. Russell, 180; Capt. J. Selwyn, R.N., 184; C. F. Henwood, 185; N. Barnaby, 185; J. D'A. Samuda, 192; F. J. Bramwell, 197; J. A. Longridge, 198; R. Mallet, 199; T. A. Rochussen, 200; Z. Colburn, 201; Admiral Elliot, 201; Capt. Scott, R.N., 208; Capt. Hamilton, 211; W. C. Unwin, 218; Capt. Symonds, R.N., 219; Admiral Sir E. Belcher, 222; J. Macintosh, 224; J. M. Heppel, 226; E. A. Cowper, 227; C. H. Gregory, 241.
- Shot-proof boat for harbours. Admiral W. S. Moorsom, xx. 455.
- Steam rams. G. P. Bidder, Jun., xx. 401; Col. Adair, 411; G. P. Bidder, 520.—Sir G. Sartorius, xxi. 205. Practical example of ramming, 206.—Admiral Sir E. Belcher, xxvi. 224.
- Thirty-two-gun frigate, proposed. J. D'A. Samuda, xxi. 191.
- Torpedo vessels. J. Donaldson, li. 65.
- Turret ships, Swedish. E. A. Cowper, xxvi. 227.

Ships of war—*continued*.

Turret ships, Monitor turret *versus* the Cowper-Coles turret. J. S. Russell, xxvi. 183; C. F. Henwood, 185; J. D'A. Samuda, 196; Vice-Admiral Elliot, 205.

— Ventilation of. J. Macintosh, xxvi. 224; J. M. Happel, 226; E. A. Cowper, 227, 228; J. Bourne, 231, 236.

— *versus* broadside iron-clads. J. Macintosh, xxvi. 224;—J. Bourne, xxix. 169, 232, 236; J. S. Russell, 181; Capt. J. Selwyn, R.N., 184; N. Barnaby, 185; E. J. Reed, 187; J. D'A. Samuda, 192; Vice-Admiral Elliot, 204, 207; Capt. Scott, R.N., 208; Capt. Hamilton, 211; Capt. T. E. Symonds, R.N., 221.

— Armour-clad turrets. J. Kunka, xlviii. 370.

Vessels of war: S. Seaward, (T.) iii. 403. Ships of war, sloops, and schooners designed by Sir S. Benthham, iv. 180.

'Bellerophon,' ram of the, influence of, on the speed. J. D'A. Samuda, xxvi. 196.

'Dictator,' monitor. J. Bourne, xxvi. 172, 231.

— *versus* 'Bellerophon.' J. Bourne, xxvi. 174, 232.

— *versus* 'Hercules.' E. J. Reed, xxvi. 190.

'Gloire.' G. P. Bidder, Jun., xx. 397; Admiral Sir G. R. Sartorius, 430; H. Conybeare, 460.

'Princeton,' American frigate. T. Braithwaite, iii. 83.

'Trusty,' experiments on the. J. S. Russell, xx. 422; Com. R. Scott, R.N., 425.

'Warrior.' Construction and efficiency. G. P. Bidder, jun., xx. 397; J. S. Russell, 417, 420. Com. R. Scott, R.N., 426; Admiral Sir G. R. Sartorius, 430; H. Conybeare, 460.

— Construction and efficiency. J. D'A. Samuda, xxi. 188, 252; J. S. Russell, 195, 197; Admiral Sir G. Sartorius, 202; Admiral Fitzroy, 223; P. Thornton, 229; Capt. Halsted, R.N., 237; G. P. Bidder, 247.

— *versus* the 'Gloire.' G. P. Bidder, jun., xx. 397; Admiral Sir G. R. Sartorius, 430; H. Conybeare, 460.

— *versus* 'Hercules.' C. H. Gregory, xxvii. 196.

## SHIPS OF WAR—ARMOUR PLATES:—

Armour plates: thickness, form, and method of fastening. Col. Adair, xx. 410;—J. D'A. Samuda, xxi. 190, 194, 251; J. Ditchburn, 194; R. Roberts, 194; J. S. Russell, 196; E. A. Cowper, 208; R. P. Brereton, 209; Sir J. D. Hay, 218; Sir E. Belcher, 215; W. Fairbairn, 224; Capt. B. Pim, R.N., 225; Capt. Halsted, R.N., 234.—C. B. Vignoles, xxix. 293.

— and targets, resistance of. Col. Adair, xx. 411; J. S. Russell, 424; J. D'A. Samuda, 429; Sir W. G. Armstrong, 471.—J. D'A. Samuda, xxi. 190, 251; J. S. Russell, 195; F. Wentworth-Sheilds, 207; E. A. Cowper, 207; Sir J. D. Hay, 212, 223; Admiral Fitzroy, 219; P. Thornton, 227; Capt. Halsted, R.N., 232, 235; J. Brunlees, 240; W. Pole, 241; G. Clarke, 243; G. P. Bidder, 248.—W. C. Unwin, xxvi. 218; J. Bourne, 233.

— committee. J. S. Russell, xx. 421; Com. R. Scott, 425;—C. H. Gregory, xxvii. 189.

Armour plating *versus* guns. Vice-Admiral Elliot, xxvi. 205.

Partial armour *versus* complete armour. G. P. Bidder, Jun., xx. 398.—R. Roberts, xxi. 194; J. S. Russell, 197; Admiral Sir E. Belcher, 214, 219; Capt. Halsted, R.N., 237; J. D'A. Samuda, 249.

**SILT.** See *Mud*.

**SILVER:—**

- Desilvering works at Newark, New Jersey. Koch, lviii. 407.
- Occurrence of selenium in fine silver. H. de Bray, xlvii. 396.
- Reduction of silver ores by the Californian method in Mexico. H. Richter, xlviii. 358.

**SIPHONS:—**

- Reversed siphons for conveying water, constructed by the Romans. G. Rennie, xiv. 205. By the Greeks, 206.
- Self-acting syphon, for clearing pneumatic tubes of water. C. F. Varley, xxxiii. 20.
- Siphon for draining tunnel works. W. M. Peniston, xiii. 476.
- California. Siphon across the river Feather. E. Sauvage, xlv. 324.
- Dublin terminus, Midland Great Western railway. Siphon for emptying the insistent pontoon bridge. R. Mallet, ix. 349.
- France, siphon-aqueducts for supply of Eastern Canal of. W. B. Dawson, lv. 216, 224.
- Gorai bridge, Eastern Bengal railway, siphon for drawing off excavated earth and water from cylinder foundations, for. B. Leslie, xxxiv. 10, 38.
- Hull. Siphon for cofferdam at Victoria dock. W. J. Doherty, li. 149.
- Nágpúr waterworks, siphon at. A. R. Binnie, xxxix. 5, 8.
- Paris, siphon-sewer, main drainage of. F. Target, liii. 198.
- Rochester bridge, siphon for clearing the water from the foundation cylinders for. J. Hughes, x. 358.
- St. Germain, siphons employed for the drainage of the Middle Level, at. J. Hawkshaw, xxii. 504, 508, 509.
- S. Paul (Var), wrought-iron canal siphons over the valley of. M. Oppermann, xli. 301, 302;—M. Briche, xlix. 346;—G. Wilson, li. 225.
- Sandhurst water supply, Victoria. Cast-iron siphon, Crusoe reservoir, J. Brady, lvi. 142.

**SLATE QUARRIES:—**

- List of authorities on slate and slate quarrying. A. A. Langley and C. J. Bellamy, xlv. 224.
- "Slate quarrying in the Festiniog district, North Wales." (S.) A. A. Langley and C. J. Bellamy, xlv. 211. (1 plate.)
- Tramways and wagons, xlv. 220. Sawing table, 220.
- Ventilation of slate quarries: A. A. Langley and C. J. Bellamy, xlv. 214.

**SLEEPERS.** See *Permanent Way*—Sleepers.

**SLIDING RULE,** by C. Hoare, xiv. 524.

**SLIPS:—**

- Slips, or inclined planes. E. Clark, xxv. 295; J. S. Russell, 345.
- Carthagera. Slips for floating docks at Carthagera. G. B. Rennie, xxv. 333; E. Clark, 352.
- Hernösand. Repairing slip at the Hernösand works. V. M. Ström, li. 379.
- Hull. Repairing slip, Hull docks. J. Timperley, (T.) i. 26.
- Kiel, the slips for building men-of-war at. H. Franzius, xlv. 296.

Slips—*continued.*

Palermo, repairing slip at. W. Theis, *xlvi.* 297.

— Frictional resistance of slips:—W. Theis, *xlvi.* 299. Estimated resistance: G. B. Rennie, *xxv.* 334.

SMELTING lead ore. H. Bräuning, *lii.* 350.

— processes. See *Blast Furnace.*

— works of the Mechernich Mining Company. H. Jäger, *xli.* 314.

## SMOKE PREVENTION IN ORDINARY STEAM BOILER FURNACES:—

Historical notice. J. Simpson, *xlii.* 201; J. Simpson, *jun.*, 384.

Admission of air above or beyond the fire. J. Parkes, (*T.*) *ii.* 164; *i.* (1838), 18;—A. Murray, *iii.* 332;—T. Hawksley, *xi.* 405; S. C. Homersham, 407; J. Field, 410; Mr. Jerrard, 411; W. Fairbairn, 412; N. Wood, 413;—G. W. Sutcliffe, *lviii.* 230.

General conditions for smoke prevention. J. Simpson, *jun.*, *xlii.* 396.

Heated air *versus* cold air. W. Woodcock, *xiv.* 6, 18, 29; C. B. Mansfield, 11; C. W. Williams, 23; J. Lee Stevens, 25, 28; I. K. Brunel, 26; T. Webster, 27; J. Simpson, 30.

Inside firing or flue-firing *versus* under-firing. W. Woodcock, *xv.* 286, 302; R. B. Hall, 292; J. A. Longridge, 296; E. Humphrys, 299; A. C. Hobbs, 301; Mr. Spencer, 304.

“Management of engine furnaces, with a view to the prevention of the waste and nuisance from smoke.” C. W. Williams, *xlii.* 397.—Discussion on the two preceding Papers: C. W. Williams, *xlii.* 403, 409; F. Braithwaite, 405; Dr. N. Arnott, 405; A. Fraser, 406; G. F. Wilson, 406; J. G. Marshall, 407; J. Hawkshaw, 407; G. Muir, 408; J. Simpson, *Jun.*, 410; J. Field, 410; D. Eckstein, 411; Mr. Jerrard, 411; D. Muahet, 411; W. Fairbairn, 412; A. Poynter, 413; N. Wood, 413; J. Simpson, 415.

Prevention of smoke in Cornish boilers. C. Greaves, *xix.* 582.

“— in engine furnaces.” J. Simpson, *jun.*, *xlii.* 383.

Williams' (C. W.) system. A. Murray, *iii.* 333;—C. W. Williams, *xlii.* 398, 409; G. Muir, 408;—C. Greaves, *xix.* 17; C. B. Mansfield, 19; C. W. Williams, 22; T. Webster, 27.

## SMOKE PREVENTION—ECONOMY OF FUEL BY:—

Economy of fuel by smoke-prevention. T. Hawksley, *xi.* 405;—A. Fraser, *xlii.* 406; G. Muir, 408;—W. Woodcock, *xiv.* 7, 14, 23; W. B. Jenkins, 15, 16; J. B. Burney, 19; G. F. Wilson, 23; J. Lee Stevens, 25;—T. Hawksley, *xix.* 570; J. A. Longridge, 578; D. K. Clark, 583.

## SMOKE PREVENTION—MECHANICAL APPLIANCES:—

Brunton's revolving grate: J. Simpson, *jun.*, *xlii.* 390; J. G. Marshall, 407.

“Combustion of fuel in furnaces and steam boilers, with a description of Bodmer's fire grate.” J. G. Bodmer, *v.* 362. (1 plate).—Discussion: J. E. McConnell, *v.* 368; J. G. Bodmer, 368; J. Taylor, *Jun.*, 368.

Cooke's multiple grate. J. Simpson, *jun.*, *xiv.* 392.

Hall's reciprocating firebars. J. Simpson, *jun.*, *xiv.* 391; G. F. Wilson, 406.

Hazeldine's oscillating firebars. J. Simpson, *jun.*, *xiv.* 391; G. F. Wilson, 23, 406.

Jukes' endless chain of firebars. J. Simpson, *jun.*, *xlii.* 390; A. Fraser, 406; F. Wilson, 406; *xiv.* 23.



**Smoke prevention—mechanical appliances—continued.**

Mechanical appliances: J. Simpson, jun., xiii. 390, 394; A. Fraser, 406; G. F. Wilson, 406; G. Muir, 408; J. Field, 410.

Mechanical stoker for refuse fuel. J. Head, xviii. 86, 88; W. Anderson, 97; Dr. C. W. Siemens, 99; E. A. Cowper, 101.

— used in Lancashire. G. W. Sutcliffe, lviii. 230.

Palmerston furnace. D. Mushet, 411.

Prideaux's Venetian doors: G. Muir, xiii. 409; C. W. Williams, 409.— G. F. Wilson, xiv. 23.

**SMOKE PREVENTION—SPECIALLY ARRANGED FURNACES:—**

Air in streams from a hollow fire-bar, over the fire: C. W. Williams, xiii. 399; —J. B. Burney, xiv. 20. Perforated hollow furnace-door, with gauze diaphragms: J. B. Burney, xiv. 20. Hollow cast-iron bridge, and steam-jet in it: J. B. Burney, xiv. 20. Air-plate at the bridge: S. E. Rosser, xiv. 21. Air at the bridge: I. K. Brunel, xiv. 27.

Combined coke ovens. N. Wood, xiii. 414.

Cubitt's (T.) subsidiary fire for heating the air, 393.

Double-furnace boiler. J. Simpson, jun., xiii. 392, 410; W. Fairbairn, 412.

Hick and Son's, Rose's, and Johnson's, double-furnace boilers, 393.

"Means of avoiding visible smoke from boiler furnaces." W. Woodcock, xiv. 1.—Discussion: W. Woodcock, xiv. 14, 16, 17, 23, 29; H. B. Jenkins, 15, 16; J. Sewell, 15, 28; C. Greaves, 16, 17; W. Haywood, 17; J. Simpson, 17, 30; G. Lowe, 18; C. H. Dye, 18; C. B. Mansfield, 19; J. B. Burney, 19; Dr. N. Arnott, 21; S. E. Rosser, 21; C. W. Williams, 22; G. F. Wilson, 23; J. Lee Stevens, 24, 28; W. G. Armstrong, 26; I. K. Brunel, 26; T. Webster, 27; C. May, 29.

Prevention of smoke in furnaces of gasworks; air at perforated bridge. G. Lowe, xiv. 18.

Specially arranged furnaces: J. Simpson, jun., xiii. 391, 395. C. W. Williams' perforated front and bridge, 391, 397. Proportion of air, 404; G. Muir, 408; W. Fairbairn, 412.

Subsidiary grate and caloric plate. J. Lee Stevens, xiv. 24.

Various contrivances for prevention of smoke. C. Hood, i. (1840), 63.

Ventilating furnaces in coal mines. N. Wood, xii. 413, 414.

Woodcock's system: ashpit screen, and heated air in streams from reversed hollow bridges. W. Woodcock, xiv. 7, 14, 16, 30; W. B. Jenkins, 15, 16; C. Greaves, 16; W. Haywood, 17; G. Lowe, 18; C. H. Dye, 18; C. B. Mansfield, 19; C. W. Williams, 22; J. Sewell, 29. Temperature in the air-passages: W. Woodcock, xiv. 30.

**SNOW:—**

Air and oxygen dissolved in water and snow. R. Adie, iv. 326.

Evaporation of snow. J. F. Bateman, xxxix. 34.

Snow plough for railways. American snow plough: C. D. Fox and F. Fox, xxxix. 79; C. D. Fox, 90.

— Zealand railways. O. Busse, lvi. 322.

**SOIL:—**

Friction of soils. W. Airy, lv. 241. See *Foundations*, — Supporting power, &c.

Nature of soils. R. Lefebvre, lv. 338.

Soil—*continued*.

Vibration of the soil, i. (1837), 31.

See *Filtration*; *Landslips*; *Moisture*; *Railway Cuttings and Embankments*; *Sewage Filtration*.

SOUNDING APPARATUS. C. Tardieu, xlix. 381.

SOUNDS, transmission of, by electricity, i. 309.

SPECTROSCOPIC measurement of high temperatures. A. Crova, lvi. 390.

SPONTANEOUS COMBUSTION of Cotton Waste soaked in varnish (oil).  
H. Tapezierer and Dr. Bohrig, liii. 399.

SPRINGS. See *Clocks and Chronometers*; *Railway Carriages and Wagons*.

STAGING, temporary. See *Scaffolding and Staging*.

STAMPING ENGINES :—

Direct-acting steam-stamp for crushing copper ores, in the Lake Superior district. C. M. Rolker, l. 280.

Duty of stamping engines. J. S. Enys, (T.) iii. 463.

"Stamping engines in Cornwall." J. S. Enys, i. (1840), 83.

Stamping engine, Tincroft mines. T. Wicksteed, (T.) ii. 65.

Waterwheels for stamping, in Cornwall. N. Beardmore, viii. 62.

STATICS, graphical (geometry in engineering investigations). A. Favaro, xliii. 326.

STEAM :—

"Changes of temperature, consequent on any change in the density of elastic fluids, considered especially with reference to steam." T. Webster, (T.) i. 219.

"Combined steam." J. Wethered, xix. 462.—Discussion: J. Wethered, 468, 485; J. A. Longridge, 468; A. C. Hobbs, 469, 483; E. Humphreys, 470, 473; D. Partridge, 471, 476; J. Topham, 472; G. J. Parson, 473; W. Beardmore, 474; T. Howard, 474, 476; C. May, 476; J. Dinnen, 476; G. Rennie, 478; C. W. Siemens, 479; L. E. Fletcher, 480; J. Jones, 482; C. Greaves, 482; E. A. Cowper, 483; W. H. Dorman, 484; G. P. Bidder, 487.

Constituent heat of steam. J. Parkes, (T.) iii. 70.

"Expansive action of steam." J. M. Heppel, vi. 316.—Discussion: J. Glynn, vi. 337; W. Froude, 337; Prof. Brande, 337; J. J. Hawkins, 338; W. Gravatt, 339; G. P. Bidder, 339, 341; S. Hocking, 340, 342.

Generation of hydrogen from steam. J. McF. Gray, li. 67.

"Law of the expansion of steam." T. Tate, vi. 343.

"Mechanical properties of saturated vapours in vacuo." C. Antoine, xlv. 283.  
Percussive action of steam. J. Parkes, (T.) iii. 276.

"— or instantaneous action of steam and other aeriform fluids." J. Parkes, (T.) iii. 409.

— action of steam. J. Parkes, i. (1840), 77, 82; S. Seaward, 78; J. M. Rendel, 79;—J. Parkes, i. (1841), 104.

"— action of steam and other aeriform fluids." J. Parkes, i. (1841), 149.  
—Discussion: G. Lowe, i. (1841), 150; S. C. Homersham, 151; S. Seaward, 152, J. Parkes, 152.

## Steam—continued.

- "Pressure and density of steam with the proposed new formula for the relation between them; applicable particularly to engines working with high-pressure steam expansively." W. Pole, ii. (1843), 209; vi. 350.
- Rationale of superheated steam. T. Howard, xix. 474, 476; C. May, 476; C. W. Siemens, 479; L. E. Fletcher, 481; C. Greaves, 482; E. A. Cowper, 484; Hon. J. Wethered, 486.
- "Relation between the temperature and elastic force of steam when confined in a boiler containing water." J. Farey, (T.) i. 85.
- Researches on ebullition. D. Gernez, xli. 298.
- Spheroidal condition of water, by M. Boutigny. W. Woodcock, xv. 288; J. A. Longridge, 295, 296; T. J. Pearsall, 297; W. K. Hall, 306; R. Stephenson, 307.
- Steam on common roads. See *Locomotion on common roads*.
- "Steam expansion table." G. Edwards, i. (1837), 24; (1838), 42.
- Superheated steam in contact with water. W. K. Hall, xv. 282; J. A. Longridge, 295.
- Surcharged water in contact with steam, by R. Hunt. J. A. Longridge, xv. 296.
- Table for saturated steam. Prof. A. Fliegner, xl. 286.
- "Theoretical calculation of the fuel saved by working steam expansively." J. W. Lubbock, i. (1840), 3.
- Value of the coefficient of expansion of superheated steam. M. Croullebois, xliv. 284.
- Velocity of undulation of steam and water. Dr. Schaffhaeutl, i. (1841), 104.

## STEAM BOILERS:—

- Baillie's system of heating steam boilers by red-hot iron. G. J. Morrison, xliv. 42.
- Circulation of water in steam boilers. J. F. Flannery, liv. 130, 138, 140, 159; J. A. Longridge, 146; J. S. Russell, 149; L. Olrick, 155; E. B. Marten, 163; F. J. Rowan, 173, 175.
- Combustion of coal in portable-engine boilers. W. Exall, xvi. 34;—D. K. Clark, lii. 148; F. J. Bramwell, 151; table, 152.
- "— of fuel in furnaces and steam boilers, with a description of Bodmer's fire-grate." J. G. Bodmer, v. 362.—Discussion: see *Smoke*, prevention of (p. 300).
- "Construction and proper proportions of boilers for the generation of steam." A. Murray, iii. 331.
- Cornish boilers. A. Murray, iii. 334;—W. Pole, xv. 297; W. Woodcock, 303;—C. Greaves, xix. 582.
- Cylindrical boiler with feed heaters. E. B. Marten, liv. 163.
- Demenge's steam boiler. L. Poillon, lvii. 348.
- "Description of a diaphragm steam generator." P. H. Boutigny, xi. 392.—Discussion on this Paper and that of the Earl of Dundonald on the use of tubular boilers, and J. S. Russell on marine boilers (*Marine engines and boilers*, pp. 162, 159): A. Murray, xi. 397, 399, 403; Dr. M. Faraday, 398, 403; P. H. Boutigny, 398, 404; J. Glynn, 398; W. G. Armstrong, 399; A. Gordon, 399; R. Stephenson, 400; I. K. Brunel, 402; C. May, 402; J. S. Russell, 403; R. Hunt, 404; T. Hawksley, 405; G. P. Bidder, 406; S. C. Homersham, 407.
- Disc-fitted boiler. M. Lugand, xlii. 328.



Steam boilers—*continued*.

- Feed-water apparatus. "Giffard's injector." J. England, xxiv. 198.—Discussion: *Injectors* (p. 122).
- Fire-grate for burning anthracite. R. W. Perkins, liv. 154; J. F. Flannery, 159.
- Galloway boiler. G. W. Sutcliffe, lviii. 227.
- Green's fuel economiser. G. W. Sutcliffe, lviii. 232.
- Heat-trap. Earl of Dundonald, xi. 388; A. Murray, 397; R. Stephenson, 401.
- Heating feedwater by the exhaust-steam from non-condensing engines; (Chiazzari's pump-injector). liii. 353.
- Lancashire boiler. G. W. Sutcliffe, lviii. 227.
- Low-water blow-off valve. W. K. Hall, xv. 284, 286, 306; W. Woodcock, 286, 303; R. B. Hall, 293; J. A. Longridge, 297.
- Parallel-motion safety-valve. J. Poole, xix. 52.
- Portable engines and boilers for burning refuse fuel,—straw, &c. J. Head, xlviii. 81, 84; table, 85, 88; F. Garrett, 93, 94.
- Priming and its prevention. W. Maugham, viii. 182, 184; T. Hawkaley, 184; J. Scott Russell, 185.
- Safe boiler. E. Humphrys, xv. 299; Mr. Spencer, 304.
- Safety-valve. "Description of an improved form of safety-valve for steam boilers (spherical)." J. Fenton, xv. 33.
- Smoke condenser for underground steam boilers at the Queen Louisa coal mine near Zrabze, in Upper Silesia. H. Schantz, xl. 291.
- Steam boilers (best proportions and arrangements). P. Havrez, xlii. 322; xliii. 368.
- with petroleum as fuel. H. Aydon, lii. 178; L. Olrick, 197; Admiral Selwyn, 199; E. F. Bamber, 204.
- in use in the large factories of East Lancashire and West Yorkshire. G. W. Sutcliffe, lviii. 227.
- Temperature in furnaces. J. A. Longridge, lii. 109; D. K. Clark, 147; W. Schönheyder, 164.
- Water regulator for steam boilers, Lapham's, xvi. 308.
- See *Injectors*; *Locomotive* boilers; *Marine* engines and boilers; *Smoke*, prevention of.

STEAM BOILERS, report to the Alsatian Association of proprietors of, for the season 1873-74. C. Meunier-Dollfus, xl. 286.

## STEAM BOILERS: CORROSION, INCRUSTATION, AND SEDIMENT:—

- Anti-incrustants. Dr. Ritterbandt, v. 199.
- Ritterbandt's (Dr.) process (muriate of ammonia) for preventing incrustation. Dr. Ritterbandt, v. 201; J. T. Cooper, 202; A. Smee, 207.
- Collectors for sediment. C. May, v. 214.
- Corrosion of steam boilers. A. C. Hobbs, xv. 301.
- Feed-water and incrustation of steam boilers, liv. 334.
- Incrustation in steam boilers. "On water for locomotive engines, and its chemical analysis." W. West, v. 182.—Discussion: see *Locomotive* boilers.
- Prevention of incrustation. G. P. Bidder, viii. 176; R. Stephenson, 183; T. Wicksteed, 184.
- Preventive coating. T. J. Pearsall, xv. 298.

Steam boilers : corrosion, incrustation, and sediment—*continued*.

Removal of incrustation by the use of muriatic acid. J. Farey, v. 213; A. Gordon, 214.

Report of the results of a chemical analysis of boiler stone and sediment. Prof. A. Rélohoubek, xlv. 365.

Talc as a disincrustant in steam boilers. C. Bidois, liii. 352.

Zinc as a disincrustant in steam boilers. Prof. Lesueur, xlii. 329.

See *Locomotive* boilers; *Marine* engines and boilers.

#### STEAM BOILERS, HIGH-PRESSURE TUBULOUS :—

"Construction of steam boilers adapted for very high pressures." J. F. Flannery, liv. 123. (1 plate).—Discussion: J. F. Flannery, liv. 142, 158, 175; E. A. Cowper, 142; J. A. Longridge, 145; W. E. Rich, 146; J. F. Spencer, 147, 150; J. S. Russell, 148; J. McF. Gray, 150; T. R. Crampton, 153; R. W. Perkins, 154; L. Olrick, 155; R. V. J. Knight, 159; E. B. Marten, 162; D. Phillips, 165; F. J. Rowan, 171.

Barron's boiler oil as a heating medium. J. F. Flannery, liv. 137, 139; J. McF. Gray, 151.

Belleville boiler. J. F. Flannery, liv. 133, 139; L. Olrick, 156.

"Circuit" boiler. L. Olrick, liv. 156.

Howard's Boiler. J. F. Flannery, liv. 132, 139.

Perkins's boiler. L. Perkins, li. 44; Admiral Selwyn, 58; J. McF. Gray, 67; J. Bailey, C.B., 80; J. Mackenzie, 97;—J. F. Flannery, liv. 135, 139, 159; J. F. Spencer, 147, 150; J. S. Russell, 150; T. R. Crampton, 153; L. Olrick, 156; E. B. Marten, 163; D. Phillips, 165, 170.

Root's boiler. J. F. Flannery, liv. 181; L. Olrick, 156; E. B. Marten, 162.

Rowan and Horton's boiler. J. F. Flannery, liv. 180, 181, 139; F. J. Rowan, 171.

Spiller's boiler. E. A. Cowper, liv. 142.

Watt's boiler. F. J. Flannery, liv. 134, 139, 177; L. Olrick, 156.

See *Marine* Engines and Boilers.

#### STEAM BOILERS, EVAPORATIVE PERFORMANCE OF :—

Boutigny's diaphragm boiler. P. H. Boutigny, xi. 395, 404.

Comparative performance of fuels—petroleum, coals, peat, wood, straw—under steam boilers. Prof. H. Fritz, xliii. 399.

"Evaporation of water from steam boilers." J. Parkes, i. (1838), 17, 28. J. Parkes, (T.) ii. 161.

—decreasing in geometrical progression. P. Havrez, xxxix. 398.

Evaporative performance of "two-flue Cornish multitubular boilers," using peat, wood, and coal as fuels. W. Anderson, xli. 204.

"—of steam boilers." D. K. Clark, (S.) xlv. 242.

Field boiler and its evaporative performance. L. Olrick, lii. 172; with petroleum as fuel, 197.

Heating surface and the economic production of steam in boilers. L. Bour, l. 259.

Influence of calorimeter on evaporative performance. L. Olrick, lii. 171.

Performance of wagon boiler. J. Parkes, (T.) iii. 11.

—Cornish boiler. J. Parkes, (T.) iii. 9.

Report on comparative trials of an elephant boiler and two boilers internally fired (Mulhausen), xliii. 377.

Steam boilers, evaporative performance of—*continued.*

Steam boilers and chimneys. R. Briggs, xlv. 339.

"— and steam engines." J. Parkes, i. (1839), 54. J. Parkes, (T.) iii. 1, 49.

Tubulous boilers in America: evaporative performance. E. B. Marten, liv. 162.

See *Coal*, combustion of; *Locomotive* boilers; *Smoke*, prevention, &c.

#### STEAM BOILERS, EXPLOSIONS OF:—

"Account of the explosion of a steam boiler at the Penydarran ironworks, South Wales." A. Stephens, ii. (1842), 145.

Association for the prevention of explosions of steam boilers. Capt. Galton, xxi. 375.

"Causes of the explosions of steam boilers." W. K. Hall, xv. 281.—Discussion: W. K. Hall, xv. 286, 305; W. Woodcock, 286, 302; R. B. Hall, 29; E. Woods, 293; J. A. Longridge, 294; W. Pole, 297; T. J. Pearsall, 297, 305; E. Humphrys, 299, 300; J. Hawkshaw, 299; C. H. Gregory, 301; A. C. Hobbs, 301; Mr. Spencer, 303; L. E. Fletcher, 304; T. Webster, 305; R. Stephenson, 307.

"Circumstances under which explosions frequently occur in steam boilers, and the causes to which such explosions may be assigned." Dr. Schafhaeuti, (T.) iii. 435.

— the means of preventing them." Dr. Schafhaeuti, i. (1841), 103.—Discussion: J. Parkes, i. (1841), 106, 113; S. Seaward, 113, 114; B. Donkin, 114; J. Field, 114; J. Walker, 114.

"Description of an apparatus for preventing the explosion of steam boilers." R. M'Ewen, i. (1840), 55.

Electricity as a cause of explosion. W. K. Hall, xv. 282.

Explosion of the boiler of the 'Union' steam packet, at Hull. J. Timperley, i. (1838), 41; J. Macneill, 41; J. Field, 42; W. Cubitt, 42, 43; J. Buddle, G. Lowe, 46.

Explosions of steam boilers in inside-fired and under-fired boilers. W. Woodcock, xv. 288.

Fusible plugs. W. K. Hall, xv. 284; J. A. Longridge, 294.

Hydrogen as an explosive. W. K. Hall, xv. 282.

Overheated plates as a cause of explosion. W. K. Hall, xv. 282, 305; W. Woodcock, 288, 302; E. Woods, 293; J. A. Longridge, 294; T. J. Pearsall, 298; R. Stephenson, 307.

Overpressure as a cause of explosion. E. Woods, xv. 294; C. H. Gregory, 301; T. Webster, 305; R. Stephenson, 308.

Steam boiler explosions, and experiments in relation thereto. Dr. Hermann Scheffler, i. 256.

Superheated steam as a cause of explosion. W. K. Hall, xv. 283; W. Woodcock, 292; E. Woods, 294; L. E. Fletcher, 304.

Surcharged water as a cause of explosion. J. A. Longridge, xv. 296; T. J. Pearsall, 298; W. Woodcock, 303.

See *Locomotive* Boilers.

#### STEAM BOILERS—RADIATION OF HEAT:—

Loss of heat by radiation from steam boilers. J. C. Hoadley, xlix. 374.

#### STEAM BOILERS, STRENGTH OF:—

Conditions of resistance in cylindrical boilers. H. Resal, xl. 290.

Steam boilers, strength of—*continued.*

- Principles of the strength of steam boilers. A. Holt, li. 129.  
 Resistance of flue-tubes to collapse. R. V. J. Knight, li. 133.  
 "— of boiler-flues to collapse." W. C. Unwin, (S.) xlvii. 225.  
 "Strength of flat plates and segmental ends of boilers, and other cylinders."  
 (S.) D. K. Clark, liii. 170.  
 — of flat-stayed plate surfaces. P. Samson, li. 114.

## STEAM ENGINES:—

- Historical notice. Sir J. Rennie, v. 20.  
 "Advantages of working stationary and marine engines with high-pressure steam, expansively and at great velocities, and of the compensating or double crank system." J. G. Bodmer, iv. 372. (5 plates.)  
 "Application of steam as a motive power, considered especially with reference to the economy of atmospheric and high-pressure steam."  
 G. H. Palmer, (T.) ii. 33.  
 Beam *versus* direct action. "An investigation of the comparative loss by friction in beam and direct action steam engines." W. Pole, ii. (1848), 69.  
 Condensation of steam in pipes, Edgehill tunnel. J. Grantham, i. (1841), 147;—H. Robinson, xlix. 15.  
 Corliss-valve diagrams. Dr. Proell and Hr. Scharowsky, lvi. 368.  
 Description of a stationary steam engine of 200 HP., constructed of J. G. Bodmer's system, iv. 396.  
 Diagram of work of steam with expansion. H. Davey, liii. 112.  
 Economical results of performance of mixed steam (saturated and superheated) in stationary engines. Hon. J. Wethered, xix. 465; A. C. Hobbs, 469, 483; E. Humphrys (superheated by steam-casing), 473; W. H. Dorman, 484.  
 "Economy of working expansively in crank engines." J. Watt, i. (1839), 44.  
 Efficiency of the steam jacket. T. Wicksteed, i. (1838), 7;—F. J. Bramwell, xxiii. 56.—J. McF. Gray, li. 69; G. B. Rennie, 105; R. Sennett, 123;—F. J. Bramwell, liii. 119; H. Davey, 124.  
 — of coating for steam pipes. B. F. Isherwood, xli. 294.  
 — calculated on the theory of the mechanical equivalent of heat. F. Jenkin, xxiii. 65.  
 Engine counter. J. Richmond, vii. 71.  
 Expansion-gear in Lancashire. G. W. Sutcliffe, lviii. 235.  
 Expansive working of steam: gain from increased pressure. J. F. Flannery, liv. 125; E. A. Cowper, 144; J. A. Longridge, 145; J. F. Spencer, 147; J. S. Russell, 148; J. McF. Gray, 150; T. R. Crampton, 153; R. V. J. Knight, 159; D. Phillips, 165; F. J. Rowan, 171.  
 Experiments on the steam engine in 1873 and 1875. G. A. Hirn, Dwelshauvers-Déry, W. Grosseteste, and O. Hallauer, xlvii. 376.  
 Factor of safety in the construction of steam-engines. J. Farey, iv. 347.  
 Fly-vane governor, Smith's, xvii. 367.  
 Hirn's method of testing steam engines, and its application. F. L. Poupardin, xlv. 293.  
 Loss of power in steam engines. H. Davey, liii. 113.  
 Mather's elastic metallic piston, vii. 239.  
 Nominal horse-power. "On the nominal horse-power of steam engines."  
 Commander L. G. Heath, R.N., x. 306.—Discussion: R. Stephenson,

Steam engines—*continued*.

- x. 309, 310, 311; C. Cowper, 310, 315; Sir J. Rennie, 310; J. Hawkshaw, 310, 314; S. C. Homersham, 311; A. Pellatt, 311; W. Radford, 311; J. Matthew, 311; J. Field, 312, 315; D. Thomson, 312, 314; T. R. Crampton, 313; J. S. Enys, 313; Capt. W. S. Moorsom, 313; J. M. Heppel, 313; C. Wadsworth, 313; J. Bethell, 313, 315; A. Henderson, 314; E. Humphreys, 314, 315; C. May, 315; J. Farey, 315; W. Cubitt, V.-P., 316.
- Performance of an agricultural engine. F. J. Bramwell, xxiii. 60.
- of steam engines in France, in 1870-74;—double cylinder, and Woolf engines. C. Meunier-Dollfus, xl. 288.
- "Results obtained by Mr. G. H. Palmer, respecting the maximum duty of a given quantity of atmospheric steam." T. Webster, i. (1837), 41.
- Siemens regenerative engine. D. K. Clark, xvi. 15.
- Shaw's spiral exhaust-nozzle, li. 325.
- Spur fly-wheels in the United States. J. F. Radinger, lv. 404.
- in Lancashire. G. W. Sutcliffe, lviii. 255.
- "Stationary engines at the new tunnel on the Liverpool and Manchester railway." J. Grantham, i. (1841), 146.
- "Steam boilers and steam engines." J. Parkes, (T.) iii. 1. 49.
- Steam engines used for agricultural purposes. See *Agriculture*.
- with variable expansion gear. H. de Wilde, liv. 337.
- Steam-jacket, economy of, in a Corliss engine, Mulhouse. Walther-Meunier and G. Keller, lviii. 389.
- conditions for economy of working. G. W. Sutcliffe, lviii. 251.
- Steam traps. G. W. Sutcliffe, lviii. 254.
- Superheated steam; its effect on the cylinder. J. Grantham, xxix. 132; J. R. Ravenhill, 169; G. R. Stephenson, 192.
- Theoretically perfect steam engine. C. W. Siemens, xii. 577, 588.
- Trial of a Corliss engine. Walther-Meunier and G. Keller, lviii. 388.
- Trials of the consumption of coal in a steam engine. C. Ludwig, xlv. 345.
- Vertical engines. G. W. Sutcliffe, lviii. 250.
- See *Agricultural* (portable) engines; *Coal* mining, *Winding* engines; *Governor*; *Indicator*; *Locomotives*; *Marine* engines and boilers; *Pumping* engines; *Pump-valves*; *Roads*, *Common*, *Locomotion on*; *Ships* and steam vessels.

## STEAM ENGINES, COMPOUND:—

- Combined vapour (chloroform) engine, trial of. H. Hensman, xviii. 260.
- (ether) engines. Trial of Du Trembley's engine on board the 'Sahel' steamship; construction and performance. J. W. Jameson, xviii. 239; F. J. Bramwell, 265; R. Stephenson, 272, 274; Du Trembley, 290.
- *versus* steam engine. J. W. Jameson, xviii. 239; G. Rennie, 253; C. W. Siemens, 256; W. R. Grove, Q.C., 259; F. J. Bramwell, 260; E. A. Cowper, 267; E. Humphrys, 271; A. Murray, 271; S. C. Homersham, 273; R. Stephenson, 274; J. S. Russell, 279; L. E. Fletcher, 281; J. F. Spencer, 292.
- Comparative efficiency of steam-, heated-air-, gas-, and petroleum-engines. Prof. H. Fritz, xliii. 400.
- Compound engine with one cylinder and three pistons. M. Westphal, liii. 354.



Steam engines, compound—*continued*.

Compound steam engines compared with the Corliss engine. M. Fréminville, liv. 334.

Compounded beam engines, Lancashire. G. W. Sutcliffe, lviii. 249.

Cowper's (E. A.) compound engine, with reservoir : E. A. Cowper, xxxiii. 63. Results of trials : J. Taylor, xxix. 171.

Expansive working of steam in compound engines. E. A. Cowper, li. 62; J. L. K. Jamieson, 64.

Experiments on compound engines. O. Hallauer, liii. 355.

Horizontal compound engines in Lancashire. G. W. Sutcliffe, lviii. 234.

Performance of combined vapour engines : on board the 'Du Trembley,' G. Rennie, xviii. 253.

— of steam in a compound engine with intermediate receiver. M. Westphal, lvi. 367.

Single cylinders *versus* compound cylinders. W. Pole, xxiii. 92.

Steam and ether engine, efficiency of. C. W. Siemens, xii. 587; xviii. 256.

Theory of the expansive action of steam in compound engines. W. Pole, xxiii. 97.

Woolf-engine, trial of a, at Ghent. M. Dwelshauvers, liii. 353.

— Performance of, in France. C. Meunier-Dollfus, xl. 288.

— Test trial of, by M. Hirn. F. L. Poupardin, xlv. 293.

— Non-condensing, and boiler. V. Cadiat, xlvii. 375.

— Woolf pumping-engine. S. Hocking, vi. 340.

— Trials of a horizontal Woolf-engine. M. Walther-Meunier, l. 260.

— Woolf steam engines for the pneumatic despatch, by Messrs. Eastons and Anderson. R. S. Culley and R. Sabine, xliii. 62.

See *Marine* engines and boilers.

STEAM ENGINES, CORNISH :—

Historical notice. J. Taylor, iii. 91;—W. Morshead, Jun. xxiii. 45; C. Greaves, 67; W. Husband, 76; N. Beardmore, 84; W. Pole, 89.

"Action of steam as a moving power in the Cornish single-pumping engine." J. Parkes, i. (1840), 75.—Discussion : T. Wicksteed, i. (1840), 78, 79; S. Seaward, 78; J. M. Rendel, 79; J. Field, 80; J. Parkes, 80.

— of the loaded plunger. C. Greaves, xlix. 31.

"— of steam in Cornish single-pumping engines." J. Parkes, (T.) iii. 257.

Analysis of performance of Cornish engine, Old Ford, East London water-works. C. W. Siemens, xii. 576; W. Pole, 593.

"Application of steam as a moving power, considered especially with reference to the reported duties of the Cornish and other engines." G. H. Palmer, i. (1837), 38.

Best speed of Cornish engines. J. S. Enys, i. (1840), 17.

Calculation of efficiency of Cornish engines on the principle of the mechanical equivalent of heat. F. Jenkin, xxiii. 66.

Comparative duty of coal, wet and dry, in Cornish engines. W. J. Henwood, i. (1838), 14.

"Cornish engines." T. Wicksteed, i. (1838), 2, 6.—Discussion : i. (1838), 3, 6; J. Parkes, 9; J. Walker, 12.

— for water supply : disadvantages. F. J. Bramwell, liii. 117.

— *versus* rotative pumping engines. J. Simpson, i. (1837), 31.—F. J.

Steam engines, Cornish—*continued*.

Bramwell, xxiii. 56; E. A. Cowper, 61; S. C. Homersham, 75; W. Husband, 78; W. Pole, 85, 92; H. W. Blake, 101; T. Hawksley, 103; A. Fraser, 107.

Cornish engines *versus* marine engines. C. Greaves, xviii. 268, 287.

"Duty" how it is recorded: T. Wicksteed, (T.) i. 120. Standard measure of "duty:" J. Parkes, (T.) iii. 68. "Duty," what it is: J. Parkes, i. (1840), 16; J. Field, 16; E. Cottam, 22. "Duty" paper: W. Morshead, Jun., xxiii. 50, 52; F. J. Bramwell, 55.

— of Cornish engines, 1769–1836: tables, T. Wicksteed, (T.) ii. 67, 68.

"— of the Cornish pumping engines." W. Morshead, jun., xxiii. 45.— Discussion: F. J. Bramwell, xxiii. 54, 73. E. A. Cowper, 61; F. Jenkin, 65; C. Greaves, 67; W. S. Morris, 69; J. Simpson, 69; G. H. Phipps, 74; S. C. Homersham, 75, 82; W. Husband, 75; T. Webster, 82; N. Beardmore, 83; J. M. Heppel, 84; W. Pole, 85; J. E. McConnell, 98; H. W. Blake, 101; T. Hawksley, 103; A. Fraser, 107; J. Hawkshaw, 110.

— and efficiency of Cornish engines. H. Davey, liii. 99, 101.

Early compound pumping-engines. W. Husband, xxxiii. 77;—H. Davey, liii. 100.

"Effective power of the high-pressure expansive condensing engines in use at some of the Cornish mines." T. Wicksteed, (T.) i. 117; T. Wicksteed, (T.) ii. 61.

"Expansive action of steam in some of the pumping engines on the Cornish mines." W. J. Henwood, (T.) ii. 49.

"— in Cornish engines." W. J. Henwood, i. (1838), 13.

"Experiments and results of Mr. W. J. Henwood, as to the power of the Huel Towan engine." G. Woods, i. (1840), 30.

Friction of Cornish engines. T. Wicksteed, i. (1838), 8; J. Farey, ii. (1842), 120.

Kent waterworks: duty of engines. W. S. Morris, xxiii. 69; W. Husband, 79, 80. W. Husband, xxiii. 80, 81; A. Fraser, 108.

"Observations on the efficiency or gross power of steam exerted on the piston, in relation to the reported duty of steam engines in Cornwall at different periods." J. S. Enys, i. (1840), 1.—Discussion: J. S. Enys, i. (1840), 15, 17; T. Wicksteed, 15, 23; J. Field, 16; J. Parkes, 16, 24; E. Cottam, 17, 22; B. Donkin, 22.

"Remarks on the duty of the steam engines employed in the mines of Cornwall, at different periods." J. S. Enys, (T.) iii. 449.

"Results of a trial of the constant indicator upon the Cornish engine at the East London waterworks." Prof. Moseley, ii. (1842), 102.

"Steam engines, chiefly with reference to their consumption of steam and fuel." J. Parkes, i. (1840), 6.

Woolf pumping engine. S. Hocking, vi. 340.

Work and duty of Newcomen's engine, 1778. J. S. Enys, (T.) iii. 457, 465.

— and duty of Watt's engine, 1798: J. S. Enys, (T.) iii. 457, 466. Watt's engine in 1838, 458, 466.

See *Pump-valves*, &c.

STEAM ENGINES, BEHAVIOUR OF STEAM IN:—

Action of wire-drawing, and on the influence of the clearance on the quantity of steam required for steam engines. Dr. G. Zeuner, xl. 283.

Steam engines, behaviour of steam in—*continued*.

Compression of steam in clearance-spaces of the Woolf-engine; and its influence on the consumption of steam. O. Hallauer, xlii. 330.

Expansive-working and conditions of efficiency in the Cornish pumping engine. C. Greaves, xviii. 268, 287.

— limit of expansion for steady action. J. Walker, i. (1838), 13;— E. A. Cowper, xxiii. 61, 62.

— economy of, by utilising the momentum of the moving parts. J. Watt, i. (1839), 44.

Hypothesis on the condensation and re-evaporation of steam in the cylinders of steam engines. J. Illeck, xlviii. 336.

Importance of maintenance of temperature for expansive working of steam. G. R. Stephenson, li. 80.

Indicated pressures in Cornish engine greater than calculated pressures. S. Hocking, vi. 341.

Influence of the distribution on the efficiency of steam engines. M. Deprez, xl. 280.

Loss of efficiency in expansive working of steam. E. A. Cowper, xviii. 267, 283; C. Greaves, 269; J. Dinnen, 276, 277; L. E. Fletcher, 281;—T. Howard, xix. 475; L. E. Fletcher, 481; E. A. Cowper, 483.

"Percussive action of steam and other aeriform fluids." J. Parkes, i. (1841), 149.—Discussion: G. Lowe, i. (1841), 150; S. C. Homersham, 151; S. Seaward, 152; J. Parkes, 152.

STEAM EXHAUSTER, Siemens', for forming a vacuum in pneumatic tubes. C. Siemens, xxxiii. 10, 16, 32, 42. Sugar vacuum-pans, xxxv. 77.

STEAM GAUGE. See *Manometer*.

STEAM HAMMERS:—

Historical notice. P. R. Allen, lii. 235.

Double-acting steam hammers. W. Naylor, xvi. 307.

Ramsbottom's duplex steam hammer. P. R. Allen, lii. 236.

Steam welding hammers. Prof. J. V. Hauer, xlv. 339.

Steam hammer, with wrought-iron frame, by Thwaites and Carbutt. P. R. Allen, lii. 235.

Steam stamp, direct-acting, for crushing copper ores, in the Lake Superior districts. C. M. Rolker, l. 280.

STEAM-JET, ventilation by. W. P. Struvé, x. 35, 56; J. Darlington, 49; T. E. Forster, 51, 53; G. Gurney, 51, 53, 54; A. Gordon, 53; H. Mackworth, xii. 301; G. J. Morrison, xlv. 38, 70.

— scrubber, Körting's. B. Körting, li. 386.

STEAM NAVIGATION:—

Historical notice. Sir J. Rennie, v. 81;—J. Field, vii. 38;—W. Cubitt, V.P., ix. 139.

Fleet of the P. and O. Company, 1852. E. de Russett, li. 88.

"High speed steam navigation: and the relative efficiency of the screw propeller and paddle wheels." R. Armstrong, xvi. 327.—Discussion: R. Armstrong, xvi. 331, 365; J. S. Russell, 331, 352; J. Dinnen, 333; C. Atherton, 334; G. H. Phipps, 337, 360; Mr. Wimshurst, 337; E. Hum-

**Steam navigation—continued.**

phreya, 338, 361; J. Samuda, 340; G. Rennie, 341; G. P. Bidder, 342, 368; Prof. Airy, 343; Mr. Griffiths, 344; J. E. McConnell, 345; T. Hawkeley, 355, 360; F. J. Bramwell, 361; A. Henderson, 363.

"Ocean steam navigation." A. Henderson, vi. 484.—Discussion: J. Farey, vi. 489.

"— with a view to its further development." J. Grantham, xxix. 126. (2 plates.)—Discussion: J. Grantham, xxix. 161, 199; J. D'A. Samuda, 161; C. Wigram, 163, 167; G. R. Stephenson, 167, 192; F. J. Bramwell, 168, 187; J. R. Ravenhill, 168; E. A. Cowper, 170; Capt. J. C. Hoseason, R.N., 173; Admiral Sir E. Belcher, K.C.B., 175; Capt. Saunders, 177; A. Murray, C.B., 178, 193; T. A. Rochussen, 182; G. H. Phipps, 186; C. B. J. F. Spencer, 190; D. Thomson, 193; Capt. J. Selwyn, R.N., 194; U. B. Vignoles, 196; W. Brock, 197; W. Laird, 203; D. Hebson, 204.

"Review of the progress of steam shipping during the last quarter of a century." A. Holt, li. 2, 70, 128.—Discussion: G. R. Stephenson, li. 12, 79; A. Holt, 12; J. D'A. Samuda, 12; E. Reynolds, 14; C. W. Merrifield, 17; C. Lampert, 19; J. S. Russell, 21; J. F. Flannery, 25; T. Gray, 28; J. I. Thornycroft, 29; T. W. Traill, 30; D. MacIver, 31; R. Bruce Bell, 33; R. J. Quelch, 35; R. Greaves, 35; W. Froude, 38, 49; L. Perkins, 44; J. Dixon, 46; Capt. Bedford Pim, 47; G. H. Phipps, 49; J. R. Ravenhill, 51; Adm. Selwyn, 57; E. A. Cowper, 61; J. L. K. Jamieson, 63; T. Moy, 64; J. Donaldson, 65; J. McF. Gray, 66; J. Bailey, 80; W. Brock, 83; E. de Russett, 85; Sir C. A. Hartley, 89; D. Hebson, 96; J. Mackenzie, 97; F. C. Marshall, 97; R. E. Middleton, 102; J. B. Redman, 103; G. B. Rennie, 103; F. J. Rowan, 108; P. Samson, 111; R. Sennett, 120; W. Shute, 123; W. H. White, 125; R. V. J. Knight, 130.

Steam shipping in English ports. J. B. Redman, li. 103.

— in foreign ports. Sir C. A. Hartley, li. 89.

'White Star' line of steamers. A. Holt, li. 6; E. Reynolds, 15.

**STEAM POWER** in the Canton of Zurich. W. Weissenbach, liii. 360.

**STEAM VESSELS.** See *Ships* and steam vessels.

**STEEL:—**

Classification of steel: A. Greiner, xlii. 5. At Terre Noire, 63. At Eibiswald, Sweden: A. V. Blomberg, i. 271.

Definition of steel. W. Hackney, xlii. 2, 4, 110; Dr. Percy, 2, 5, 78; A. L. Holley, 3; A. Greiner, 4; E. Riley, 80; Dr. C. W. Siemens, 91; Dr. W. Pole, 99; Sir J. Whitworth, 106.

Definition of steel. MM. Greiner and Philippart, xlii. 306.

**STEEL, COMPOSITION AND PROPERTIES OF:—**

Absorption of gases by steel and iron. MM. Troost and Hautefeuille, xlii. 320.

Analogy between the nature of steel, and its magnetic properties. MM. Trève and Durassier, xli. 320.

Analysis of steel of the Styrian Iron Company. M. Jaritz, xliii. 408.

Application of magnetism to testing the degree of carbonization in steel, C. M. Ryder, lvi. 363.

"Chemical and physical analyses of phosphoric steel." (S.) A. L. Holley, liii. 221.

**Steel, composition and properties of—continued.**

- Composition of steel, by A. Greiner, xlii. 5; by W. Brauns, 5; by Dr. Percy, 5.
- Determination of carbon in steel and iron. A. C. McCreath, l. 271.
- Disengagement of ammonia in rupture of steel. M. Barrée, xlviii. 356;— M. Regnard, xlix. 365.
- Effects of phosphorus and manganese on the mechanical properties of steel. M. Euverte, xlix. 360.
- silicon and manganese on the properties of steel. F. Gautier, xlv. 316.
- Eggertz's coloration test for carbon in steel and iron, on the heating arrangement for. H. A. Rosén, xliii. 411.
- Gases enclosed in iron and steel. F. C. G. Müller, lvi. 360.
- Hindoo pot-steel, or 'wootz,' by Mr. Henry, xlii. 7.
- Ordinary constituents of steel. W. Hackney, xlii. 29–39. Table of constituent carbon, 49.
- Qualities of steel (dependence upon proportion of carbon). W. Metcalf, xlvii. 390.—C. Grauhan, lii. 356.
- Test for hardness of steel by punch marks. Dr. W. Pole, xlii. 103.
- Various steels. W. Hackney, xlii. 5, 54–58.
- See *Steel*, Bessemer, &c.; *Strength of materials*, steel.

**STEEL, BESSEMER, MANUFACTURE AND PROPERTIES OF:—**

- Assorting and marking Bessemer steel. Prof. R. Akerman, xliii. 409.
- Composition of the gases of the Bessemer converter. A. Tamm, xlv. 313.
- of Bessemer steel, at Zwickau, Saxony, xli. 234.
- Homogeneity of Bessemer steel. Dr. Percy, l. 62.
- Manufacture of Bessemer steel at Neuberg, Styria, xlii. 307.
- "— of malleable iron and steel." H. Bessemer, xviii. 525, 548.
- of Bessemer steel: W. Hackney, xlii. 14, 120; B. Walker, 85. In Sweden, 118. In America, 119.
- Materials for the study of the Bessemer process: (suitable conditions), E. Chernoff, lv. 418.
- New Bessemer works in Sweden. E. Westman, xlvii. 388.
- Production of Bessemer steel at Seraing. H. Deby, xlii. 309.
- Researches on the German Bessemer process. F. C. G. Müller, lv. 419.
- Re-manufacture of old Bessemer steel. C. W. Siemens, xxv. 379; T. A. Rochussen, 397; H. Bessemer, 401; H. W. Schneider, 420.
- Welding properties of Bessemer steel. H. W. Schneider, xxv. 426; F. W. Webb, 426.

**STEEL, CORROSION OF:—**"On the action of air and water, whether fresh or salt, clean or foul, and at various temperatures, upon cast and wrought iron and steel." R. Mallet, ii. (1843), 171.

**STEEL, MANUFACTURE OF:—**

- Cast steel works at Eibiswald in Sweden. A. V. Blomberg, l. 271.
- Cementation, transformation of iron into steel by. M. Boussingault, xliii. 413.
- Studies on the cementation-steel process. R. Mannermann, lvi. 361.
- Chenot's process of manufacturing steel. F. J. Bramwell, xxxii. 356.
- Chrome steel, note on (manufacture). G. Rolland, liii. 384.

**Steel, manufacture of—continued.**

Compressed steel, by Sir J. Whitworth's process. Dr. C. W. Siemens, xlii. 95.

Krupp-gun steel. C. W. Siemens, xix. 378.

Manufacture of steel. Mr. Heath, ii. (1843), 86.

— of steel plates. W. Hackney, xlii. 42.

— of puddled steel. W. Clay, xviii. 337, 340, 343; W. E. Newton, 341.

"— of steel." W. Hackney, B. Sc. xlii. 2. (3 plates.)—Discussion: see J. T. Smith's Paper "On Bessemer steel rails." (*Permanent way—steel rails.*)

— of crucible steel. W. Hackney, xlii. 7, 61. With the Siemens regenerative gas-furnace, 62.

— of open-hearth steel:—The Siemens, or pig-iron process, in the Siemens furnace, xlii. 20, 26; in the Pernot revolving furnace, 23, 27, 93, 120, 127. The Siemens-Martin, or scrap process, 24, 25, 93. The Blair process, 28, 82, 94, 121.

Production of solid steel castings. M. Euverte, xlix. 358.

Siemens-Martin process at Gratz. J. Prochaska, lii. 359.

Spigeeisen (as a solvent of hydrogen). L. Troost and P. Hautefeuille, xli. 318.

— analyses of. W. Hackney, xlii. 51.

Terre Noire process of making solid steel castings. A. L. Holley, lvii. 390.

Uchatius steel process, in Sweden. G. Arehn, xliii. 408.

See *Furnaces*; *Furnaces, gas*; *Steel, Bessemer, &c.*

**STEEL, USE OF, IN CONSTRUCTIONS:—**

Employment of steel in railway bridges. Sir J. Hawkshaw, xliii. 96, 103; F. J. Bramwell, 96; Dr. W. Pole, 103; T. E. Harrison, 122.

Substitution of steel for iron. W. Pole, xxvi. 345; F. J. Bramwell, 365; J. A. Longridge, 372.

Use of steel in construction. F. Gautier, xlii. 310.

See *Bridges*; *Rails*; *Strength of materials—steel.*

**STEEL-BRONZE. R. Paulus, xlvi. 321.****STEERING, new mode of, applied to boats of light draught. Capt. Henderson, i. (1841), 80.****STONE, ARTIFICIAL:—**

'Artificial granite,' by M. D'Harcourt, i. (1839), 59;—G. F. White, xi. 490.

"Manufacture of artificial stone, with a silica base." F. Ransome, vii. 57.—

Discussion: F. Ransome, vii. 59, 64, 65, 68; Dr. M. Faraday, 60, 61, 64; A. Pellatt, 61, 63, 65; C. H. Smith, 61; R. Stephenson, 63; Prof. Donaldson, 63; J. Farey, 63; R. T. Ransome, 65; Dr. Garrod, 65, 69; C. Barry, 66; Dean of Westminster (Dr. Buckland), 66; Sir H. de la Beche, 67; J. Walker, 67, 69; R. Phillips, 68; J. M. Rendel, 68; C. May, 69; W. Carpmel, 70; W. Newton, 70; J. I. Hawkins, 70.

— Ransome's, or "Apoenite." J. Milroy, xxxv. 197; F. Ransome, 209.

Term cotta. C. H. Smith, vii. 61; A. Pellatt, 63; J. Farey, 63.

See *Concrete.*

**STONE, BUILDING:—**

"Cabook," Ceylon. W. J. W. Heath, xxiv. 14.

Stone, building—*continued*.

Conglomerate stone, for piers and abutments of iron bridge over the Inn.

O. Schnorr v. Carolsfeld, and A. Rottmüller, lv. 347.

Expansion of stone by heat. G. Rennie, (T.) iii. 215, 217, 218.

Forest of Dean stone. J. B. Mackenzie, lv. 94.

Freestone, Dalziel, Calder viaduct, Wishaw and Coltness railway. J. Macneill, ii. (1842), 190.

— Red freestone, Craigellachie viaduct. W. H. Mills, xxv. 231.

Granite. "Remarks on Herm granite, by Frederick C. Lukis, Esq., of Guernsey, in reply to inquiries from the President; with some experiments made by the latter on the wear of different granites." Communicated by J. Walker, (T.) i. 231.

— new bridge, Stratford-le-Bow. J. B. Redman, (T.) iii. 355.

Heavy building stones for sea-walls. C. H. Smith, vii. 200.

Limestone, Miramas. T. Hawthorn, xxiv. 151.

— Lary bridge, Plymouth. J. M. Rendel, (T.) i. 106.

— for masonry of Scinde railway. J. Brunton, xxii. 461.

— Uster canal. T. Casebourne, ii. (1842), 53.

— Blue limestone and 'klinkers,' canal of Katwijk, Holland. Chev. F. W. Conrad, ii. (1842), 173.

— Hard limestone, for Henares and Esla Canals, Spain. G. Higgin, xxvii. 492.

Mannez stone, Alderney, for the breakwater. J. Jackson, xxxvii. 86; Sir J. Cooke, 93.

Natural formation of. Dr. Buckland, vii. 66.

Quartz rock, Holyhead mountain, for Holyhead Harbour. H. Hayter, xlv. 97.

Sandstone, &c., Birmingham and Gloucester railway. T. Casebourne, ii. (1842), 54.

— Bramley Fall, Barnaley, Whitby, Dundee, and Mexborough sandstones, Humber dock, Hull. J. Timperley, (T.) i. 46; iii. 106.

— Craigleith sandstone, Edinburgh. W. J. M. Rankine, vii. 188.

— Whittle sandstone, bridges of Preston and Bolton railway. A. J. Adie, ii. (1842), 177.

Stone-crusher, Blake's. Performance. F. C. Barron, li. 242.

"Strata of stone in the neighbourhood of Whitby." N. King, i. (1838), 20.

See *Lewis*; *Strength of materials*—stones, bricks, &c.

STOVES, hot-blast :—"On recent improvements in regenerative hot-blast stoves for blast furnaces." E. A. Cowper, xxx. 309.—Discussion: See *Blast-furnaces*, blast for.

Joyce's stove, i. (1838), 11.

See *Warming*.

STRAINS in beams. See *Beams*.

— in guns. See *Artillery*.

— in iron bridges. See *Bridges*.

STRATIFICATION. See *Geology*.

STRAW. Furnace for the combustion of straw in portable engines. J. Head, xlviii. 79, 80, 81, 86; F. Garrett, 93.

— Straw-burning engines. J. Head, xlviii. 78.

**STREETS :—**

- Liverpool. Composition of concrete for foundation of streets. G. F. Deacon, lviii. 10, 14; table 13.
- Street traffic in. G. F. Deacon, lviii. 22. Average load per wheel, 22, 80. Maximum load on a vehicle, 23, 80.
- London. "Present state of the streets of the metropolis and the importance of their amelioration." C. Cochrane, ii. (1843), 202.
- Traffic in metropolitan streets. O. H. Howarth, lviii. 48; J. F. Bateman, 50; E. B. Ellice-Clark, 91.
- principal thoroughfares in, gradients of, ii. (1842), 71.
- "Holborn Hill and the plans for its improvement." J. Turner, ii. (1842), 69.
- Paris, the streets of, liii. 328.
- Note on the scavenging of the public ways of. M. Vaissière, i. 223.
- Cost of cleansing the streets of. M. Vauthier, lii. 375.
- Roads, streets, and pavements, in Victoria and Tasmania. C. T. Hargrave, lv. 355.
- Streets of Pernambuco. W. M. Peniston, xxii. 390.
- Subways for water-pipes and gas-pipes, Paris. H. B. Hederstedt, xxiv. 273, 279; J. Aird, Jun., 345.
- Unit measure of traffic on a street. O. H. Howarth, lviii. 33, 49, 51, 86; G. F. Deacon, 51, 79; A. Giles, 71.
- See *Pavements; Roads*.

**STRENGTH OF MATERIALS—GENERAL PRINCIPLES:—**

- Historical notice. Dr. W. Pole, xxix. 25; C. Reilly, 27, 77; W. H. Barlow, 48; R. Mallet, 54.
- Beams. "On experiments on the strength of materials" (transverse resistance). T. Webster, i. (1837), 27.—Discussion: E. Cottam, i. (1837), 28; J. I. Hawkins, 28; B. Donkin, 29; F. Bramah, 29.
- Direct measurement of stress, practicability of. W. Bell, xxxiii. 123.
- Apparatus for: M. Dupuy, lii. 296.
- Elasticity, coefficients of. R. Mallet, xviii. 298, 331, 346; W. Clay, 337; F. J. Bramwell, 339.
- M. Phillips' method of determining the coefficients and limits of elasticity. R. Mallet, xxix. 61.
- Definitions of elasticity. C. Reilly, xxix. 30; xxx. 259.
- Elastic limits and their methods of alteration (metals). Prof. R. H. Thurston, lii. 295.
- "Elementary illustration of the principles of tension and of the resistance of bodies to being torn asunder in the direction of their length." T. Tredgold, (T.) i. 175.
- Experiments on deformation with india-rubber models. Dr. E. Winkler, lvi. 293.
- "Fatigue and consequent fracture of metals." F. Braithwaite, xiii. 463.—Discussion: F. Braithwaite, xiii. 467, 468, 472, 473; W. J. M. Rankine, 467; C. W. Williams, 468; W. Fairbairn, 468, 469, 470; D. K. Clark, 469; T. R. Crampton, 469; J. Hawkshaw, 469, 474; C. B. Vignoles, 470; E. Humphrys, 470; T. Dines, 471, 472; J. Sewell, 471; H. Grisell, 471; G. H. Phipps, 472; T. Hawkley, 473; J. E. Errington, 474; J. Simpson, 475.



**Strength of materials, general principles—continued.**

**Fatigue of metals: influence of repeated strains.** C. Newton, iv. 295; J. Field, 295; J. Farey, 346.—R. Mallet, xxix. 59;—G. Berkley, xxx. 217.—W. E. Rich, xlvii. 65. See *Railway axles*.

**Hollow cylinders, conditions of stress in, subject to internal pressure.** J. A. Longridge, xix. 296; C. H. Brooks, 329; F. J. Bramwell, 365;—J. Bourne, xxvi. 168.

**Increase of elasticity in metals by continued strain.** Maj.-Gen. Uchatius, xlix. 284.

**Kinds of stress.** J. Gaudard, xxviii. 537;—C. Reilly, xxix. 80.

**Modulus of elasticity of cast and wrought iron.** W. Bell, xvi. 66.

— **variation of, in iron.** T. C. Clarke, liv. 184; W. H. Barlow, 216; B. Baker, 220. In steel: W. H. Barlow, liv. 217; T. C. Clarke, 237.

**New method of detecting overstrain in iron and other metals, and on its application in the investigation of the causes of accidents to bridges and other constructions.** Prof. R. H. Thurston, liii. 301.

“**Present state of knowledge as to the strength and resistance of materials.**”

J. Gaudard (translated from the French by W. Pole), xxviii. 536; xxix. 25.

— **Discussion:** Dr. Pole, xxix. 25; C. Reilly, 27, 77; C. W. Siemens, 32; E. W. Young, 34; W. C. Unwin, 38; J. M. Heppel, 41; W. H. Barlow, 48; C. Brooke, 53, 75; R. Mallet, 54; R. P. Brereton, 63; G. H. Phipps, 70; E. A. Cowper, 71; A. Murray, C.B., 73; G. W. Hemana, 74; Prof. Sir W. Thomson, 74; B. B. Stoney, 75; R. H. Bow, 76; J. Jones, 76; F. J. Bramwell, 76; C. H. Gregory, 94; J. Gaudard, 95.

**Proper function of the experimental branch of the science.** C. Reilly, xxix. 93.

**Rate of set of metals subjected to strain.** Prof. R. H. Thurston, xlix. 283.

**Relative values of blows and pressure.** Prof. F. Kick, xlv. 302.

**Resistance of materials to rupture by flexure and by tension.** L. Durand Claye, xlix. 287.

— **of solid bodies to vibration.** J. Gaudard, xxix. 565;—R. Mallet, xxx. 58.

— **to tensile stress, of which the resultant is not coincident with the centre of gravity of the section.** T. Tredgold, (T.) i. 176;—G. H. Phipps, xxii. 572;—C. Reilly, xxiv. 413, 452; F. J. Bramwell, 439, 446; W. H. Barlow, 445; W. Gravatt, 446; F. Jenkin, 446. **Experimental investigations:** W. H. Barlow, xxiv. 445; xxix. 50.

**Rupturing stress due to waves of vibration.** J. Sewell, xix. 16; J. W. Papworth, 18.

**Strains on an axle when tested transversely by blows.** W. Liehmann, xlv. 281.

**Strength and toughness of wires of various metals.** C. M. Goulier, xlix. 288.

**Testing apparatus.** See *Testing apparatus*.

**Theory of the elasticity and strength of hollow cylindrical bodies.** G. Kaiser, xlvii. 370.

**Torsion oscillation of wires, on the damping of.** Dr. H. Streintz, xl. 370.

See *Artillery*—Resistance of guns; *Beams*, Strains in; *Girders*; *Steam-boilers*, Strength of.

**STRENGTH OF MATERIALS—COPPER, LEAD, AND METALLIC ALLOYS:—**

**Bronze, tensile strength of.** R. Paulus, xlv. 323, 324.

— **tensile strength of steel-bronze.** Col. A. S. Lavroff, xliii. 420.

Strength of materials—copper, lead, and metallic alloys—*continued*.

Copper injured by repeated heatings. J. Field, i. (1838), 42.

— and phosphorus, alloys of. F. A. Abel, xix. 373.

— Force necessary to punch holes in plates of copper. J. Colthurst, i. (1841), 60.

Gun-metal. (Transverse strength of gun-metal test bars.) On the mechanical properties of gun-metal. H. Tresca, xxxix. 421.

— Tensile strength of, xliii. 418, 419.

Lead, experiments on lead and other soft bodies. Prof. Kick, i. 188.

STRENGTH OF MATERIALS—IRON, CAST IRON:—

Comparative transverse strength of cast-iron bars and toughened cast-iron bars (Stirling's metal), by E. Hodgkinson, xi. 239.

— of straight rectangular cast-iron bars, arched rectangular bars, and bars of Stirling's metal. G. Rennie, xviii. 357.

Compressive resistance of cast-iron. G. Berkley, xxx. 224, 236.

"Experiments on the strength of cast iron smelted with purified coke."

W. Fairbairn, xii. 360.—Discussion on the two preceding Papers: W. Fairbairn, xii. 375, 377; Dr. Percy, 375; J. H. Blackwell, 376; J. Gibbs, 376; W. Bird, 378; C. May, 378; J. Locke, 378; Sir C. Fox, 379; I. K. Brunel, 379; C. Calvert, 379; J. M. Rendel, 381.

Hodgkinson's formula for the transverse strength of cast iron, iii. 244; xvi. 84.

Hot-blast iron *versus* cold-blast iron. D. Mushet, ii. (1843), 126; J. Farey, 129; G. Rennie, 130; R. Davison, 131, 133; C. May, 132;—I. L. Bell, xxxii. 366.

"Increased strength of cast iron produced by the use of improved coke." F. C. Calvert, xii. 352.

"Laws of the strength of wrought and cast iron." W. Bell, xvi. 65.—Discussion: P. W. Barlow, xvi. 76; W. T. Doyne, 77; J. M. Heppel, 78; E. A. Cowper, 79; G. H. Phipps, 80; R. Sheppard, 81.

Permanent set of cast iron. T. Dines, xiii. 471, 472; H. Grissell, 471; T. Hawksley, 473; J. Hawkshaw, 474.

"Relative strength and other properties of cast iron, from the Turkish and hematite ores." E. Hodgkinson, iii. 240.

Respective merits of blast-furnace castings and cupola castings. (Comparative transverse strength of 1 inch square cast-iron bars.) A. Ledebur, xxxix. 416.

Small scantling of cast iron bars *versus* large scantling, by Col. Sir H. James. J. A. Longridge, xix. 341; H. Conybeare, 386.

Tensile resistance of cast iron for cannons, to blows and strains. Prof. Kick, xlv. 304.

— strength of cast iron for car-wheels. Z. Colburn, xxviii. 372; W. Pole, 408; Sir C. Fox, 418.

— of samples from cast iron of guns manufactured in the United States. H. Conybeare, xix. 383.

— of cast iron of various makes. J. A. Longridge, xix. 448, 444.

— of Acadian iron, re-melted. J. A. Longridge, xix. 443;—F. J. Bramwell, xxii. 559.

— of cast iron improved by seasoning. F. J. Bramwell, xix. 364; Capt. R. A. E. Scott, R.N., 366.

**Strength of materials—iron, cast iron—continued.**

Tensile strength of American cast iron. Z. Colburn, xxii. 543, 544, 558;—  
Dr. Pole, xxxix. 106.

— compressive, and transverse strength, of Kumaon iron. W. Sowerby, xvi. 83.

— of Styrian cast iron for guns. R. Paulus, xlv. 324.

— “Experiments upon cast and malleable iron at the Milton ironworks, Yorkshire, in February, 1843.” D. Mushet, ii. (1843), 126.—Discussion: G. Cottam, ii. (1843), 128; G. Lowe, 128; J. Parker, 129, 131; J. Farey, 129, 132; J. Field, 130, 133; G. Rennie, 130; W. Brunton, 130; R. Davison, 131, 133; C. B. Vignoles, 131; W. Carpmael, 131; C. May, 132; D. Mackain, 132; R. Ransome, 132; J. Nasmyth, 132.

Transverse strength of cast-iron and wrought-iron bars. “On the strength and elasticity of materials.” (S.) W. J. Millar, lviii. 222.

— cast iron, Ystalyfera ironworks, W. Carpmael, ii. (1843), 131; C. May, 132; D. Mackain, 132; J. Nasmyth, 132.

Variation of transverse strength of rectangular test-bars of cast iron. J. A. Ransome, xviii. 358.

**STRENGTH OF MATERIALS—IRON, WROUGHT-IRON:—**

“Account of some experiments to determine the force necessary to punch holes through plates of wrought iron and copper.” J. Colthurst, i. (1841), 60.

Certainty of welds. S. Hooking, viii. 278.

“Coefficients,  $T_e$  and  $T_r$ , of elasticity and rupture in wrought iron; in relation to the volume of the metallic mass, its metallurgic treatment, and the axial direction of its constituent crystals.” R. Mallet, xviii. 296.—Discussion: J. Locke, xviii. 331, 347; R. Mallet, 331, 343; T. Howard, 332; W. Clay, 333, 340, 343; F. J. Bramwell, 339, 341; H. Maudslay, 339; C. May, 340; A. C. Hobbs, 341, 342; G. W. Hemans, 341; W. E. Newton, 341, 342.

Comparative tensile strength of various qualities of wrought-iron bars, and bars of Stirling’s toughened iron, by E. Hodgkinson, xi. 239.

Defectiveness at welds. T. Howard, viii. 273, 274; J. Farey, 275. Influence of welded joints on the strength and ductility of bar iron. Hr. Stambke, liv. 291.

Deformation of wrought-iron plates, by rolling loads: W. W. Beaumont, xlvii. 52. Cast-iron plates, 53.

Elastic strength of wrought iron. G. Berkley, xxx. 216; C. Reilly, 258; C. W. Siemens, 268; R. P. Brereton, 270.

— of wrought iron. T. Howard, viii. 274, 276, 277.

Influence of galvanising on the strength of wire. C. F. Varley, xxv. 35.

— of hard and soft vibration on tensile resistance of holding-down bolts. Mr. Vigers, xvii. 49.

Massive iron forgings. Sir W. G. Armstrong, xx. 471.

Modulus of elasticity of wrought iron: experimental results. C. Bender, xlv. 281.

Oscillations of load: suddenly applied loads. Strength of iron and steel under moving loads. Hr. Lippold, lvii. 319.

Resistance of iron to stress suddenly applied. Dr. Schaffhaeuti, i. (1841), 105.

Strength of materials—iron, wrought-iron—*continued*.

Resistance of wrought iron to sudden tensional stress. Dr. Schafhaeutl, (T.) iii. 441.

— of Staffordshire plates to bulging stress. J. Brunlees, xxi. 240.

Shearing strength of rivets. W. T. Doayne, ix. 356, 357.

"Some peculiar changes in the internal structure of iron, independent of and subsequent to the several processes of its manufacture." C. Hood, ii. (1842), 180.

Strength and elasticity of bar-iron, by E. Hodgkinson. C. Reilly, xxx. 259.

— of charcoal-iron wire, by Gen. Morin. C. Reilly, xxx. 261.

— of iron as affected by punching. J. Cochrane, xxx. 265.

— as affected by reheating. W. Clay, xviii. 333.

— of wrought iron as affected by composition and reduction by rolling.

A. L. Holley, lvi. 356.

— — as affected by hammering or cold swaging and vibration. J. O.

York, ii. (1843), 89; J. Taylor, 93; W. Gravatt, 9; J. Parkes, 107.

— — iron as affected by form. W. J. M. Rankine, ii. (1843), 106.

— of a notched bolt of wrought iron made from hot-blast pig. D. Mushet, ii. (1843), 128; J. Parkes, 129, 131.

— of iron and steel at different temperatures. C. Huston, liii. 303.

" — — and on the design of parts of structures which consist of those materials." G. Berkley, xxx. 215. (1 plate.)—Discussion: G. Berkley, xxx. 256, 274; G. H. Phipps, 256; C. Reilly, 258; W. Parsey, 263; J. Cochrane, 265; G. B. Bruce, 266; G. J. Morrison, 267; C. W. Siemens, 368; J. B. Redman, 269; W. E. Rich, 270; R. P. Brereton, 270; Sir C. Fox, 272.

— of wrought iron cut out of massive forgings. R. Mallet, xviii. 305, 312, 317, 320, 330; tables, 330. Curves of tension and compression, 318, 319. Specific gravities, 329.

— of massive forgings, relative to that of the original iron. R. Mallet, xviii. 324, 326; W. Clay, 335.

Tensile resistance of iron wire. Dr. Schafhaeutl, (T.) iii. 441. W. Pole, xxi. 242;—Dr. Pole, xlii. 102.

— of Newall's wire, plain and galvanised. F. C. Webb, xvii. 276, 307; C. T. Bright, 306.

Tensile strength at low temperatures. W. W. Beaumont, xlvii. 48; Dr. Percy, 61.

— of Bessemer iron bars and plates. H. Bessemer, xviii. 543.

— of wrought-iron plates, for Charing Cross bridge. H. Hayter, xxii. 527.

— of iron made by Crampton's process. T. R. Crampton, xlii. 105.

— (and qualities) of iron made with Dank's furnace. J. J. Williams, li. 329.

— of iron for railway bridges in America. Specification of Ohio river bridge. T. C. Clarke, liv. 196, 235; Dr. Siemens, 234.

— of iron for guns. G. A. Canet, lvi. 228.

— of Styrian wrought iron. B. Paulus, xlii. 324.

— of Styrian charcoal iron wire. E. Langer, xlvii. 402.

Transverse strength of corrugated plate. W. T. Doayne, ix. 354.

Wrought-iron bars: tensile resistance. T. Dunn, xvi. 303. At weld, 306.

American wrought-iron bars: Z. Colburn, xxii. 544. Charcoal iron, 545.

## STRENGTH OF MATERIALS—STEEL:—

- Bessemer steel, tensile strength of. H. Bessemer, xviii. 544.  
 ——— in rails: G. Berkley, xxv. 386; xxx. 229, 255. In plates, xxv. 386.  
 Compressive strength: G. Berkley, xxv. 387; tables, 387-390. Tensile and comparative strength, xxx. 238. Transverse strength, table, 255.  
 Bessemer steel, the Barrow Hematite Steel Company. Tensile strength, compressive strength, shearing strength, resistance to buckling, transverse strength, by Mr. D. Kirkaldy. H. W. Schneider, xxv. 422-425.  
 ——— tensile strength of, having different proportions of manganese. M. Euverte, xlix. 364.  
 ——— of German Bessemer steel. Dr. F. C. G. Mueller, lv. 421.  
 ——— Experiments on the tensile strength of Bessemer steel. L. Imperatori, lvi. 364.  
 ——— Phenomena observed in making a test of a piece of Bessemer steel (tensile elasticity). W. Kent, lviii. 406.  
 Compressive strength of steel. R. Price Williams, xxvi. 295.  
 Deformation of thick steel plates by hammering. J. I. Thorneycroft, xlvii. 65.  
 Effects of phosphorus and manganese on the mechanical properties of steel. M. Euverte, xlix. 360.  
 Elastic strength of steel. G. Berkley, xxx. 230. Its permanency: C. W. Siemens, xxx. 268.  
 Physical properties of the steels of commerce, and the laws of their permanent deformation. M. Marché, xli. 325.  
 Resistance of puddled steel plates to bulging stress. J. Brunlees, xxi. 240.  
 Steel *versus* iron: uniformity of strength. G. Berkley, xxv. 391.  
 Steel plates, tensile strength of. F. W. Webb, xxxvi. 18.—C. D. Fox and F. Fox, xxxix. 69; F. W. Webb, 92; T. W. Worsdell, 93; W. H. Barlow, 95; Dr. C. W. Siemens, 100; J. Fernie, 112; E. A. Cowper, 116; C. D. Fox, 120.  
 Strength of steel as affected by its composition. Dr. Siemens, xxxix. 100, 101; Dr. W. Pole, 107.  
 ——— and other mechanical properties of steel. W. Hackney, xlii. 45; influence of sudden cooling, 45; hardening in oil, 46; notches and holes, 46, 97; proportion of constituent carbon, 29, 63, 72, 74, 89, 108, 110, 114, 124; manganese, 30, 38; sulphur, 34, 94; silicon, 35, 124; phosphorus, 36, 38, 40, 94, 124; copper, 38; tungsten, 39; titanium, 39; annealing, 83.  
 ——— of Mersey Steel Company's puddled steel: R. Mallet, xviii. 325; tables, 330. W. Clay, 337.  
 ——— of American phosphoric steel. A. L. Holley, liii. 225, 235.  
 ——— of Terre Noire phosphoric steel. A. L. Holley, liii. 242.  
 ——— of steel wire *versus* solid steel. Dr. C. W. Siemens, lvi. 210, 212; S. C. Homersham, 211.  
 Susceptibility of steel to fracture by sudden stress. J. Price, xxxii. 201; F. J. Bramwell, 205; C. W. Siemens, 206.  
 Tensile resistance of compressed steel. J. Whitworth, xlii. 107.  
 ——— of Krupp's steel for guns. R. Paulus, xli. 324.  
 ——— of steel for guns. G. A. Canet, lvi. 228.  
 ——— of "dead-melted" steel. M. Euverte, xlix. 360.  
 ——— of steel, by the Steel Committee of Civil Engineers. G. Berkley, xxx. 229.—W. Bell, xxxiii. 125.—W. H. Barlow, xlii. 108.  
 ——— of music wire. F. J. Bramwell, xix. 365; Dr. Pole, xxi. 242; xlii. 102.  
 ——— of cast-steel wire, E. Langer, xlvii. 403.

## STRENGTH OF MATERIALS—STONES, BRICKS, &amp;c.:—

Bricks, blue and brown; Netherton tunnel. J. R. Walker, xix. 274; table, 276.

Bricks. Compressive strength of, of various kinds. J. Grant, xxv. 76; tables, 98–101.

— Japanese, xlvii. 9.

— Crushing strength of. J. Prucha, xlv. 295.

— London clay and Staffordshire blue. A. E. Baldwin, xlix. 248.

Brickwork. G. F. White, xi. 498.

— in Portland cement. G. Robertson, xvii. 441.

— — compressive strength. J. Grant, xxiv.; table, 110.

— Adhesion of stock bricks with various cements. G. Robertson, xvii. 419.

— — of mortar to bricks. G. Robertson, xvii. 420, 430.

Clay, &c. Cohesion of clay, gravel, and loam. W. Airy, lv. 241.

Concrete, resistance of: Old quay, Dublin. W. J. Doherty, li. 143.

Glass, elasticity of flint. A. Pellatt, i. (1840), 38.

— Strength of glass tubes. J. J. Hawkins, i. (1840), 41.

Gutta-percha. Tensile strength of gutta-percha tubes. E. Highton, xvii. 315.

Indiarubber. Resistance of vulcanised indiarubber to impact. W. Brockedon, iv. 59.

— Experiments on deformation, with vulcanised india-rubber models. Dr. E. Winkler, lvi. 293.

Mortar. Experiments on the strength of cement mortar. F. Kuhn, lvi. 298.

— Experiments on the strength of different thicknesses of mortar joints. E. W. Oreswell, lviii. 366.

— Tensile strength of Puzzuolana mortar. C. Andrews, xxxiii. 365, 366; J. Grant, 371.

Paper. Tensile strength of vegetable parchment paper. A. Lüdicke, xlv. 285.

— Tensile strength of paper. A. Lüdicke, xlv. 285.

Stone. "Experiments on the force required to fracture and crush stones [granite, marbles, gritstones, slate]; made under the direction of Messrs. Bramah and Sons, for B. Wyatt, Esq., architect." Communicated by W. Freeman, (T.) i. 234.

— Bursting strength of stone pipes, by Mr. Telford. D. Mackain, ii. (1843), 136.

— Ransome's artificial stone. F. Ransome, vii. 69.

— Crushing resistance of. B. Stephenson, x. 241; C. Cowper, 242; G. B. Bruce, 243.

— Crushing resistance of rubble limestone: Barentin viaduct. G. R. Burnell, xvi. 438.

— Tensile strength of Portland stone. J. Grant, xxv. 106; J. B. Redman, 141.

— Compressive strength of stones. Portland stone: J. Grant, xxv. 76; tables, 101, 106. Bramley Fall stone: J. Grant, xxv. 76; tables, 101, 106. Yorkshire stone landings: J. Grant, xxv. 76; tables, 101, 106. Granite: J. Grant, xxv.; table, 106.

— Crushing strength of sandstone, limestone, and mortar. J. Prucha, xlv. 294, 295.

Strength of materials—stones, bricks, &c.—*continued.*

Stone. Load supported by columns of limestone. M. Keller, i. 200.  
See *Cements; Concretes.*

**STRENGTH OF MATERIALS—TIMBER:—**

Baltic red wood, compressive and transverse strength of. T. Gibson, liii. table, 158. Pitch pine, table, 158; G. B. Bruce, 160.

Experiments on the strength of timber used for pontoon bridges by the Austrian army. Major F. Senfelder and Lieut. F. Brinning, xlix. 289.

“— on the strength of various kinds of American woods exposed to a transverse strain.” Lieut. W. Denison, R.E., i. (1837), 26.

Graphic diagrams for the strength of teak beams. G. L. Molesworth, li. 286.

Longitudinal and transverse strength of oak scantlings, by M. Girard. P. W. Barlow, (T.) i. 68; table, 69.

Resistance of wood to compression. J. Hawkshaw, xxii. 533.—R. P. Brereton, xxix. 67. Factor of safety, 67.

“Series of experiments on different kinds of American timber.” Lieut. W. Denison, R.E., (T.) ii. 15.

Strength of creosoted timber. H. P. Burt, xii. 223; J. Bethell, 229.

— of kyanised timber. Capt. W. S. Moorsom, xii. 231.

Timber *versus* iron, under compression. R. P. Brereton, xxxi. 161.

Transverse strength of timber. Hr. Hoffman, lv. 352.

— of pine and oak timber, by Capt. Fowke. T. Dunn, xvi. 304, 305.

— of Indian woods. J. J. Berkley, xix. 602.

See *Piles*, load on.

**STRENGTH OF SIMPLE CONSTRUCTIONS:—**

Beams. Influence of heat on the strength of iron beams. G. Cottam, viii. 149; J. Farey, 150; Mr. Piper, 152.

— Castings, precautions in, for transverse strength of cast-iron beams. G. Cottam, ii. (1843), 128.

— Cast-iron rectangular beams, detached, and continuous, transverse strength of. W. H. Barlow, xxvi. 253; tables, 254, 255.

— Lattice beams, resistance of, to compression, when treated as columns. J. Barton, xiv. 453.

Cables. Strength of chain cables. T. Dunn, xvi. 303.

— Strength of hemp cables and chain cables. T. Dunn, xvi. 301.

Columns. Strength of iron columns and struts for American iron bridges. T. C. Clarke, liv. 199; tables, 201 to 213.

— Investigation of the strength of iron columns. Dr. E. Winkler, liii. 302.  
Girders. Wrought-iron girders, railway ferry of the Edinburgh, Perth, and Dundee railway. W. Hall, xx. 379.

— Resistance to compression of the trough-shaped upper boom of a truss girder. G. H. Phipps, xxiv. 427; C. Reilly, 456.

— Wohler's experiments on the strength of girders after repeated concussions. Dr. E. Winkler, i. 201.

— Determination of the stresses permissible in structures (girders). J. Seefehlner, lv. 342.

Riveted steel, strength of. T. R. Crampton, xlii. 106; W. H. Barlow, 108.

— Strength of riveted joints in steel plates and iron plates. R. V. J. Knight, li. 139;—J. F. Flannery, liv. 161.

**Strength of simple constructions—continued.**

Riveted steel. Resistance of rivets in riveted joints of iron girders. B. Baker, liv. 219; C. D. Fox, 230.—Dr. H. Zimmermann, lvii. 322.

— Bridge links: strength of riveted links. C. D. Fox, liv. 230.

— Rivet-joints for boiler work: Drilled holes *versus* punched holes.

G. W. Sutcliffe, lviii. 228. For bridge work: J. Gaudard, 321.

Ropes and chains. Comparison of the cost of hemp ropes, wire ropes, and iron chains, in relation to their strength. K. v. Ott, xlv. 269.

— Strength of Huddart's ropes. G. D. Dempsey, i. (1838), 89.

— Strength of flat ropes. E. Birch, i. (1841), 171.

Shafts, wrought-iron, large, breakages of. T. Howard, xviii. 332; R. Mallet, 343; table, 344.

Strength of wooden truss. J. B. Mackenzie, lv. 8.

Supports of curved form. J. Micha, l. 203.

Tubes. Compressive resistance of tubes and angle-irons. G. Berkley, xxx. 224, 238, 248.

Wheels, teeth of, probable breakage of, by extension due to concussion. W. E. Rich, xlvii. 65.

See *Beams*, transverse strength of; *Cements*; *Girders*; *Ships of war*—armour-plates; *Steamer-boilers*, strength of; *Permanent way*—strength of rails; *Railways*—axles; *Tests*, &c.

**SUBWAYS**, Paris. Subways for water-pipes and gas-pipes. H. B. Hederstedt, xxiv. 273, 279; J. Aird, jun., 345.

**SUEZ CANAL**. See *Canals* (p. 44).

**SUGAR-CANE**, furnace for the combustion of "megass," or sugar-cane refuse, in stationary boilers. J. A. Longridge, xlviii. 97; W. Anderson, 97.

Cultivation of, in Spain. M. Grand, xxxix. 427.

**SUGAR MANUFACTURE:—**

"Aba-el-Wakf sugar factory, Upper Egypt." W. Anderson, xxxv. 37. (5 plates.)

— Discussion: W. Anderson, xxxv. 71, 72, 85, 105; J. B. Redman, 71;

J. Shears, 72; G. Phillips, 73; C. W. Siemens, 75; E. Beanes, 78, 89;

J. B. Alliot, 81; J. G. O. Curtis-Godaman, 83; W. Knagga, 84, 86, 96;

G. H. Ogston, 85, 97; W. E. Rich, 86; J. C. Wilson, 87; Sir J. Alleyne,

88, 89; Dr. H. Letheby, 89; E. A. Cowper, 92; F. J. Bramwell, 94;

J. Dixon, 101; H. Davy, 102; D. Halpin, 104.

Bouscaren's diffusion process for extracting the juice of saccharin. P. Regnard, xlix. 379.

Machinery for crushing sugar-cane, and expressing the juice. MM. Mignon and Rouart, xlviii. 348.

Sugar-cane crushing mill. Lieut. J. Olibborn, lii. 367.

Sugar-mill gearing. W. Anderson, xxxv. 45; W. E. Rich, 87; E. A. Cowper, 92; D. Halpin, 104.

**SULPHURIC ACID:—**

Manufacture of sulphuric acid at Freiberg. L. Grand, xlii. 355.

Utilisation of waste products from iron pyrites (after the manufacture of sulphuric acid). P. W. Hofmann, xl. 339.



**SUN:—**

Actinometric measures made at the summit of Mont Blanc (temperature of the Sun). J. Violle, xlv. 288.

Solar radiation. A. Crova, lv. 438.

**SUN-SPOTS.** Influence of the spots on the sun on rainfall: A. R. Binnie, xxxix. 19, 28, 30, 31; G. B. Airy, 38; G. Dines, 43; A. Strange, 46; H. F. Blanford, 61.

**SURVEYING AND LEVELLING:—**

Accuracy of chain measurements. J. Wastler, xlv. 340.

— of linear measurements in land surveying. F. Lorber, xlix. 282.

Application of photography to trigonometric surveying, xlviii. 369.

Clinometer, improved by R. B. Grantham, v. 480.

— "Description of the prismatic clinometer, a new pocket instrument for measuring vertical angles." W. Pole, xi. 23.

Double off-set plotting scale. J. G. Austin, xviii. 404.

Joining of inclined lines, by parabolic arcs, xxxix. 304.

"Land surveyor's calculator." G. Heald, i. (1838) 25.

Levelling. Improved method of adjusting errors in levelling. Hr. von Bauernfeind, lii. 288.

— Displacement of the bubble of spirit-levels. M. Plantamour, liv. 286.

— Beaulieu's spirit-level, lvii. 318.

— staff. P. Bruff, i. (1838), 47.

— with aneroid barometers. Dr. P. Schreiber, xliii. 320.

— "Probable errors of levelling; with rules for the treatment of accumulated errors." W. Airy, xlv. 174.—Discussion: Sir G. B. Airy, xlv. 193; J. A. Longridge, 194; W. H. Barlow, 195, 199; H. Law, 196; A. R. Binnie, 196; J. B. Redman, 196; R. H. Hill, 197; R. G. Elwes, 197; A. Giles, 198; J. N. Shoolbred, 199; Sir J. Hawkshaw, 199; A. Woods, 200; P. Adie, 200; Major E. H. Courtney, R.E., 201; W. Airy, 201.

— "Azimuth cap as an addition to the common level." E. Cowper, i. (1840), 31.

— "Browne's patent hydraulic level." A. F. Hemming, i. (1840), 20.

— "Description of an improved level and stand." G. Townsend, i. (1841), 117.

— "Description of an improved levelling staff and a modification of the common level." T. Stevenson, i. (1841), 130.

— "Description of a proposed levelling machine." J. Harrison, i. (1837), 35.

— "A" level. J. B. Denton, iv. 403.

— Dumpy level, theory of. W. Gravatt, xxi. 38.

— Level supported upon a gimbal joint. F. B. Doering, xxiv. 104.

"Mapping of a district with reference to a central meridian." (S.) Captain F. P. Washington, R.E., lvi. 281.

Measurement of heights by the barometer. W. Pole, xi. 23.

"Measuring distances by the telescope." W. B. Bray, xxi. 34.—Discussion: W. Gravatt, xxi. 38, 46; Capt. Moorsom, 39, 43; P. Adie, 40; G. W. Hemans, 42; W. E. Metford, 42; J. S. Russell, 43, 46; A. Gordon, 44; R. Mallet, 45, 46; C. B. Lane, 46.

New surveying instrument. M. Gaumet, xlii. 392.

**Surveying and levelling—continued.**

Railways, polymeter for grading, lvi. 312.

— Projection of railways on maps. J. Macneill, i. (1837), 86, 87.

— Modern tracing of railways. H. Goldstein, xlvii. 312.

— Surveying in engineering. Sir J. Rennie, v. 112.

— for railways in Sumatra. J. L. Cluysenaer, li. 306.

“Table of gradients.” C. Bourns, i. (1838), 49.

— slopes and their corresponding angles. W. B. Bray, xxi. 37.

Theodolite, Metford’s, xv. 247.

— “Description of a double telescope theodolite.” N. Beardmore, i. (1841), 96.

Triangulation of the royal Prussian survey. M. Köpen, xlii. 391.

**SWING-BRIDGES.** See *Bridges*, movable—swing.

**SWITCHES, Railway.** See *Permanent way*—points and crossings.

**TALC**, as a disincrustant in steam boilers. C. Bidois, liii. 352.

**TELEGRAPH, ELECTRIC:—**

Historical notice. Sir J. Rennie, v. 103;—C. C. Adley, xi. 301; F. R. Window, 331; C. W. Siemens, 362; G. P. Bidder, 373.

American telegraphs. Sir J. Whitworth’s report, xi. 384. Morse’s system, 385; Bain’s system, 385; House’s system, 386.

Brooks’s Insulator. M. Gaugain, xliii. 433.

Construction, and instruments. C. C. Adley, xi. 313; F. R. Window, 337, 348; C. W. Siemens, 362; F. Whishaw, 372, 376; G. P. Bidder, 374; J. L. Ricardo, 376; T. H. Statham, 378; F. C. Bakewell, 381; A. Gordon, 383.

— of land lines in India. C. F. Varley, xxv. 39.

— of overland lines in the East. W. H. Preece, xxv. 20.

Copying electric telegraph by F. C. Bakewell. F. R. Window, xi. 360; F. C. Bakewell, 381.

Deranging causes. C. C. Adley, xi. 318, 370; Prof. G. B. Airy, 366; E. Clark, 369; J. Glaisher, 382.

Detection of faults in underground lines. Lieut. J. Roberts, xi. 372; C. W. Siemens, 373.

“Electric telegraph; its history, theory, and practical application.” C. C. Adley, xi. 299.

“Electric telegraph, and the principal improvements in its construction.” F. R. Window, xi. 329.—Discussion on the two preceding Papers: F. R. Window, xi. 361; C. C. Adley, 361, 370; C. W. Siemens, 362, 373, 377; Prof. G. B. Airy, 366; E. Clark, 369, 378; J. W. Brett, 370, 378; F. Whishaw, 371, 375; Lieut. J. Roberts, R.M.A., 372; G. P. Bidder, 373, 377; I. K. Brunel, 376; J. L. Ricardo, 376; C. Manby, 377, 379; J. Walker, 377; T. H. Statham, 378; J. L. Clark, 378; W. Reid, 379; F. C. Bakewell, 381; J. Glaisher, 382; A. Gordon, 383; J. Whitworth’s Report, 384.

Electro-dynamic induction (in telegraph conductors). H. de Meaux, lvi. 385.

Hughes’s automatic apparatus, xliv. 337.

Induction currents in telegraph lines. M. Lagarde, xlii. 386.

Telegraph, electric—*continued*.

Insulating materials. O. W. Siemens, xxi. 522, 539. Table of specific resistance of gutta percha and indiarubber, 525. Table of specific induction of gutta percha and indiarubber, 526.

Land line between Bagdad and the Persian Gulf.] [Sir O. T. Bright, xxv. 13, 16. Construction: O. W. Siemens, 18, 62.

Loss of current by leakage from the conducting wire. F. R. Window, xi. 345.

Measurement of the velocity of transmission of electricity in suspended wires. W. Siemens, xlv. 332.

Mechanical transmitter. O. W. Siemens, xxv. 62.

Mirror receivers, vibrations of. M. Wunschenorff, xlii. 389.

Mismanagement of telegraph to India. Sir C. T. Bright, xxv. 16, 63; W. H. Preece, 19; A. Ayrton, 20; Major Champain, R.E., 22; R. W. Crawford, 26; Capt. Huish, 28; R. A. Glass, 30; C. F. Varley, 32, 36; F. Gisborne, 44; J. A. Longridge, 53; T. Allan, 57.

Morse manipulator (portable automatic). Captain Colomb, lviii. 420.

New Zealand. Reports on the telegraph department; E. Dobson, xxix. 113. Telegraph lines, 119.

Posts. Report on the use of metal telegraph posts. F. Evrard, liv. 389.

— Apparatus for testing metallic telegraph poles, lviii. 419.

Practical applications. C. C. Adley, xi. 326; Prof. G. B. Airy, 368; J. Glaisher, 382.

Receiving instrument for submarine lines, lv. 423.

Speaking telegraph, l. 310.

Submerged wires *versus* suspended wires. F. R. Window, xvi. 196, 198, 201; O. T. Bright, 203;—C. T. Bright, xvii. 305; S. A. Varley, 370.

System of telegraphs in India. Maj.-Gen. G. B. Tramenheere, R.E., xvii. 512.

Table of lengths of telegraph lines, 1852. C. C. Adley, xi. 328.

Telegraph wire of Bessemer steel. T. A. Rochussen, xxv. 397.

Theoretical deduction of the best resistance of a telegraph receiving instrument. R. S. Brough, liv. 386.

— principles and laws. C. C. Adley, xi. 309, 324; F. R. Window, 334.

Underground telegraph, Channel Islands Telegraph Company. W. H. Preece, xx. 27.

— electric telegraph in Germany. C. W. Siemens, xi. 362.

— Determination of the loss of current on the Berlin-Halle underground line. Dr. Brix, l. 313.

— Berlin Halle-Mainz underground telegraph lines, lii. 395.

— Underground *versus* suspended wires. E. Clark, xi. 369; F. Whishaw, 371, 375; G. P. Bidder, 373, 377; I. K. Brunel, 376; C. V. Walker, 377; O. W. Siemens, 377.

Velocity of electricity on metallic conductors. J. Glaisher, xi. 382;—F. R. Window, xvi. 197, 198, 200, 207, 209; C. T. Bright, 210; J. L. Clark, 211; C. Varley, 214; W. Whitehouse, 215, 217.

— in underground wires. O. Frölich, lvii. 415.

TELEGRAPH, ELECTRIC. See *Pneumatic despatch*; *Railways*—Telegraphs.

## TELEGRAPH (ELECTRIC) TELEGRAPHY :—

Application of pneumatic telegraphy for lines of unlimited length. A. Crespin, xlii. 375.

— of the tuning fork in electric telegraphy. P. la Cour, xliii. 434.

Telegraph (electric) telegraphy—*continued*.

Electro-magnets in telegraphy. E. Lacoine, xlix. 388.

Evils of patents in telegraphy. G. P. Bidder, xx. 96.

General theory of duplex telegraphy. L. Schwendler, xliv. 328.

Multiple system of signalling, xxxix. 428.

New mode of duplex transmission. O. Morel, li. 393.

Operation of Henley's magneto-electric telegraph. C. T. Bright, xvi. 203;  
F. R. Window, 208; E. O. W. Whitehouse, 217; Sir C. Fox, 218.

Simultaneous transmission on submarine lines. G. Gramscini, l. 308.

Working through long lines. F. R. Window, xvi. 198, 208; C. T. Bright,  
204, 205, 209; Prof. W. Thomson, 210; L. Clark, 212; C. Varley, 213;  
E. O. W. Whitehouse, 215, Atlantic telegraph, E. Highton, xvii. 314.

## TELEGRAPH CABLES:—

Historical notice. J. W. Brett, xi. 370, 378;—F. R. Window, xvi. 188;  
T. R. Crampton, 206; L. Clark, 212; C. W. Siemens, 219; E. Highton,  
222;—F. C. Webb, xvii. 263, 301;—Sir C. T. Bright, xx. 70; G. Saward,  
77; G. P. Bidder, 97.

"Electrical qualifications requisite in long submarine telegraph cables."  
S. A. Varley, xvii. 368.

Light cables *versus* heavy cables. J. A. Longridge and C. H. Brooks, xvii.  
245; F. C. Webb, 265; C. T. Bright, 303; J. W. Brett, 307; L. Clark,  
311, 313; T. Allan, 315, 325; L. Gisborne, 317; S. A. Varley, 329, 368;  
J. A. Longridge, 348;—E. Clark, xx. 88; W. H. Preece, 93.

"Maintenance and durability of submarine cables in shallow waters."  
W. H. Preece, xx. 26. (1 plate.)—Discussion: J. Hawkshaw, xx. 49;  
W. H. Preece, 49, 91; C. F. Varley, 50; G. P. Bidder, 52, 65, 95;  
C. W. Siemens, 53, 72, 90; Admiral Fitzroy, 60; J. L. Clark, 62, 69; J. C.  
Marshallman, 66; F. C. Webb, 67; Sir C. Bright, 69; H. C. Forde, 73;  
F. Braithwaite, 75; Dr. Wallich, 75; C. West, 76; G. Saward, 77;  
F. Jenkin, 81; W. Smith, 87; E. Clark, 88; T. B. Daft, 90.

Shallow-water lines *versus* deep-sea lines. F. Gisborne, xxv. 42; J. L. Clark,  
45; J. A. Longridge, 54; Captain Selwyn, R.N., 59; Sir C. T. Bright, 63.

"Submarine electric telegraphs." F. R. Window, xvi. 188.—Discussion:  
F. R. Window, xvi. 203, 207; C. Bright, 203, 209, 223; T. R. Crampton,  
205, 224; Prof. W. Thomson, 210; J. L. Clark, 211; C. Varley, 213;  
E. O. W. Whitehouse, 215; Sir C. Fox, 218; G. P. Bidder, 218; C. W.  
Siemens, 218; Dr. M. Faraday, 220; E. Highton, 222; G. W. Hemana, 223;  
G. H. Phipps, 224.

—lines *versus* land lines. F. Jenkin, xxv. 81.

Survey and selection of routes. W. H. Preece, xx. 34, 35, 91; C. F. Varley,  
51; F. C. Webb, 68; Dr. Wallich, 75; G. P. Bidder, 104.

Table of submarine cables laid 1851–56. F. R. Window, xvi. 194, 195.

Atlantic cable: construction. C. W. Field, xvii. 302, 335. Laying: J. L.  
Clark, 313; G. P. Bidder, 332. Strength: G. P. Bidder, 332. Electrical  
conditions: S. A. Varley, 368;—W. H. Preece, xx. 49; C. F. Varley,  
52; J. L. Clark, 63; G. Saward, 78; F. Jenkin, 83; G. P. Bidder, 96;—  
Sir C. T. Bright, xxi. 531.

Black Sea cable, during the Crimean war. C. F. Varley, xxv. 38.

Cape Breton and Newfoundland cable. Sir C. T. Bright, xxv. 3.

**Telegraph cables—continued.**

Channel Islands cable: Construction and casualties: W. H. Preece, xx. 26, 28, 29, 32. Fractures; tables, 33, 91. Action of sea water, 34. Table of resistance of ends, 45.

Dover-Calais cable. F. R. Window, xvi. 190, 194; T. R. Crampton, 205; xvii. 301;—C. T. Bright, xvii. 304.

India. "The telegraph to India, and its extension to Australia and China." Sir C. T. Bright, xxv. 1, 62. (1 plate.)—Discussion: Sir C. T. Bright, xxv. 16, 62; C. W. Siemens, 18, 60, 62; Capt. D. Galton, R.E., 19; W. H. Preece, 19; A. Ayrton, 20; Major J. U. Champain, R.E., 22; R. W. Crawford, 26; Capt. M. Huish, 27; R. A. Glass, 29; F. Jenkin, 31; C. F. Varley, 32; H. J. Rouse, 42; F. Gisborne, 43; J. L. Clark, 45; C. F. Varley, 50; J. Macintosh, 51; J. A. Longridge, 53, 62; O. Rowland, 56; T. Allan, 57; Capt. Selwyn, R.N., 58.

International Telegraph Company: cables. F. C. Webb, xvii. 264. Laying, 266.

Ile of Man cable, by J. L. Clark. W. H. Preece, xx. 34;—J. L. Clark, xxv. 48.

Malta. "The Malta and Alexandria submarine telegraph cable." H. C. Forde, xxi. 493. (2 plates.)

— "On the electrical tests employed during the construction of the Malta and Alexandria telegraph, and on insulating and protecting submarine cables." C. W. Siemens, xxi. 515. (2 plates.)—Discussion on the two preceding Papers: J. Hawkshaw, xxi. 531, 540; Sir C. Bright, 531; Capt. Selwyn, 534; Prof. W. Thomson, 535; J. Chatterton, 536; J. Macintosh, 536; H. C. Forde, 537; C. W. Siemens, 538.

Mediterranean Telegraph Company's cable. J. W. Brett, xvii. 308;—F. Jenkin, xx. 81.

Persian Gulf: cable. Sir C. T. Bright, xxv. 3, 8, 64; C. W. Siemens, 18; J. L. Clark, 46. Shore ends: Sir C. T. Bright, 3, 8.

Portpatrick and Whitehead cable. C. F. Varley, xxv. 34.

Red Sea cable. C. W. Siemens, xx. 54; L. Clark, 64, 69; J. C. Marshman, 66; H. C. Forde, 73; G. Seward, 79; F. Jenkin, 85;—J. L. Clark, xxv. 49.

Shepherd and Button's submarine cable. C. Manby, xi. 379.

Singapore and Rangoon cable. J. A. Longridge, xx. 502.

**TELEGRAPH CABLES—CONSTRUCTION:—**

Cables without induction. F. Gerald, lviii. 420.

Construction of telegraph cables. W. H. Preece, xx. 35, 49; C. F. Varley, 51; C. W. Siemens, 53, 59; Admiral Fitzroy, 60; J. L. Clark, 62; J. C. Marshman, 66; F. C. Webb, 68; Sir C. T. Bright, 69; H. C. Forde, 73; F. Braithwaite, 75; J. Seward, 77, 80; F. Jenkin, 82, 83.

Cores of the Malta and other cables, sizes and weights of. H. C. Forde, xxi. 497. Resistances, 499, 510.

Hooper's core. C. F. Varley, xxv. 34; J. L. Clark, 47.

Insulating materials. C. F. Varley, xx. 51; C. W. Siemens, 59; Admiral Fitzroy, 62; C. West, 76; G. Seward, 80; T. B. Daft, 90; W. H. Preece, 94.

— Moisture absorbed by gutta percha and indiarubber; C. W. Siemens, xxi. 523; J. Macintosh, 536.

— Sir C. T. Bright, xxv. 4, 63; C. F. Varley, 34; J. L. Clark, 46;

**Telegraph cables—construction—continued.**

J. Macintosh, 51; O. Rowland, 57; Capt. Selwyn, R.N., 60; C. W. Siemens, 60.

Principles of construction. J. A. Longridge and C. H. Brooks, xvii. 244; Prof. G. B. Airy, 300, 302; C. H. Gregory, 301; C. May, 301; T. R. Crampton, 301; C. T. Bright, 304; J. W. Brett, 307; C. J. Wollaston, 309; J. L. Clark, 313; E. Highton, 314, 315; T. Allan, 315; L. Gisborne, 317; C. W. Siemens, 320; Sir C. Fox, 327; J. Macintosh, 328; J. A. Longridge, 348;—By R. Stephenson; H. C. Forde, xxi. 495.

Problem of the construction of sound cables. C. W. Siemens, xxi. 527, 539. Outer covering, xxv. 18. Most suitable construction. C. W. Siemens, xxv. 18, 60; C. F. Varley, 35, 38, 40; J. L. Clark, 47, 48; J. Macintosh, 51; Capt. Selwyn, R.N., 59.

Resistances of gutta serena and indiarubber at various temperatures; formula. Sir C. T. Bright, xxv. 6, 7, 17; Capt. Huish, 27; R. A. Glass, 29; F. Jenkin, 32; J. L. Clark, 47; C. F. Varley, 50.

**TELEGRAPH CABLES—ELECTRICAL CONDITIONS:—**

Charge and discharge of a wire: formulas. W. H. Preece, xx. 43, 44.

Electrical induction in a submarine cable. F. B. Window, xvi. 196; Prof. Faraday, 220;—S. A. Varley, xvii. 331;—W. H. Preece, xx. 41.

Inductive capacity, F. Jenkin, xx. 84.

Laws of conduction through a conductor. S. A. Varley, xvii. 368.

'Reduction inductometer,' W. H. Preece, xx. 44.

Resistance to the electric current. F. C. Webb, xvii. 357.

— of Hooper's core. Sir C. T. Bright, xxv. 17; C. F. Varley, 34, 50.

Velocity and retardation of electric waves passing through long submarine cables. W. Whitehouse, xvi. 215; C. W. Siemens, 219; Prof. Faraday, 220; E. Highton, 223. Ohm's formula, 223.

— of electricity in a metallic conductor. S. A. Varley, xvii. 330.

**TELEGRAPH CABLES—LAYING:—**

Buoys. F. C. Webb, xvii. 278, 298; J. L. Clark, 311; O. E. Browning, 332.

Cable. Laying the Dover-Calais cable: T. R. Crampton, xvii. 306; C. J. Wollaston, 309.

— Laying the Malta and Alexandria cable. H. C. Forde, xxi. 501.

— Paying-out machinery and breaks. F. C. Webb, xvii. 272, 355; L. Gisborne, 318; C. W. Siemens, 319. R. S. Newall's machinery, Dover and Calais, 272. Brett's, Mediterranean, 273, 308. Bright's, Atlantic, 273; J. Macintosh, 327. Malta and Alexandria cable: H. C. Forde, xxi. 504, 508; Sir C. T. Bright, 534. Reel proposed by Captain Selwyn, R.N., xxi. 535. Persian Gulf: Sir C. T. Bright, xxv. 9.

— Steam vessels for laying cables. H. C. Forde, xxi. 501. For Persian Gulf; Sir C. T. Bright, xxv. 8, 10.

— "Practical operations connected with paying out and repairing submarine telegraph cables." F. C. Webb, xvii. 262. (1 plate.)—Discussion on the two preceding Papers: Prof. G. B. Airy, xvii. 298, 302, 359, 366; J. A. Longridge, 300, 341, 363; F. C. Webb, 301, 307, 350; C. H. Gregory, 301; C. May, 301; T. R. Crampton, 301, 306; C. W. Field, 302, 335; C. T. Bright, 302; J. W. Brett, 307, 321; C. J. Wollaston, 309; J. L. Clark, 310; E. Highton, 314; T. Allan, 315, 325; L. Gisborne, 317;

**Telegraph cables—Laying—continued.**

C. W. Siemens, 319; W. Gravatt, 322; G. Rennie, 325; C. Field, 326; Sir C. Fox, 326; J. Macintosh, 327, 329; A. C. Hobbs, 329; S. A. Varley, 329; C. E. Browning, 332; G. P. Bidder, 332, 365; J. S. Atkinson, 334; P. R. Hodge, 340; J. Locke, 358.

— Contribution to the theory of laying and of testing submarine telegraph cables. W. Siemens, xlii. 380.

Floata, or resistors: C. T. Bright, xvii. 302; J. L. Clark, 311; W. Gravatt, 324; P. R. Hodge, 340.

Problem of submerging submarine cables. G. P. Bidder, xvi. 218; G. H. Phipps, 224; T. R. Crampton, 224;—J. A. Longridge and C. H. Brooks, xvii. 223, 255; F. C. Webb, 268, 301, 351; Prof. G. B. Airy, 298, 359, 366; J. A. Longridge, 300, 341, 363; C. T. Bright, 302; J. L. Clark, 310; E. Highton, 314; J. W. Brett, 321; W. Gravatt, 322; G. Rennie, 325; Sir C. Fox, 326; C. W. Field, 326, 335; G. P. Bidder, 333, 365; J. S. Atkinson, 334; F. C. Webb, 351;—W. H. Preece, xx. 30, 32, 34, 35, 48; C. W. Siemens, 54; J. L. Clark, 64; G. Seward, 79; F. Jenkin, 83.

“Submerging telegraph cables.” J. A. Longridge and C. H. Brooks, xvii. 221.

— “Further observations, explanatory of former remarks on the.” Prof. G. B. Airy, xvii. 359.

— Principles of. Admiral Fitzroy, xx. 62;—J. A. Longridge, xxv. 54; Capt. Selwyn, B.N., 58.

**TELEGRAPH CABLES—PERFORMANCE, REPAIR;—**

Atlantic cable: Causes of failure: J. Macintosh, xxv. 51; J. A. Longridge, 55.

Commercial success of submarine telegraphs. J. L. Clark, xxv. 49; T. Allan, 58.

Corrosion of cables in sea water. J. L. Clark, xx. 63, 69; F. Braithwaite, 75; F. Jenkin, 81, 84; W. H. Preece, 93; G. P. Bidder, 105.

— of Red Sea cable. Sir C. T. Bright, xxi. 538.

Durability. J. W. Brett, xvi. 322.

Failure of cables by corrosion of wire-coating. C. W. Siemens, xxv. 61.

Faults, failures and fractures, causes of. W. H. Preece, xx. 48, 92, 94; G. P. Bidder, 104. Experiments for causes of failure: Willoughby Smith, 87.

Instruments for working the Malta and Alexandria cable. C. W. Siemens, xxi. 521.

Maintenance of shallow-water cables. C. F. Varley, xxv. 35.

Mediterranean cable, laying and repairing. J. W. Brett, xvii. 308, 321.

Performance of Malta and Alexandria cable: H. O. Forde, xxi. 512, 513, 537; C. W. Siemens, 521, 538; Sir C. Bright, 531, 532 534; Prof. W. Thomson, 535;—R. A. Glass, xxv. 29.

— of Persian Gulf cable. C. W. Siemens, xxv. 13.

Repair of cables. W. H. Preece, xx. 34, 36, 95.

Repairing cables at sea. F. C. Webb, xvii. 287, 350; C. J. Wollaston, 310; C. E. Browning, 332.

Trials of the Dover-Calais submarine cable. W. Reid, xi. 379.

**TELEGRAPH CABLES—STRENGTH:—**

Strength of Malta and Alexandria cable. H. O. Forde, xxi. 496.

Tests for strength of cables. J. W. Brett, 321.

**TELEGRAPH CABLES—TESTS:—**

- Atlantic cable. C. T. Bright, xvii. 305; F. C. Webb, 307; C. W. Field, 339.
- Bequerel's differential galvanometer. W. H. Preece, xx. 39.
- Heating of cables. Resistance thermometer for measuring the temperature of cables: C. W. Siemens, xxi. 520. Heating of Malta and Alexandria cable; H. C. Forde, 500; C. W. Siemens, 520.
- Malta and Alexandria cable. Electrical tests. C. W. Siemens, xxi. 516.
- Laws of resistance: W. H. Preece, xx. 37. Ohm's formula, 37. Specific resistance of metals, 38. Resistance coils, 38, 94.
- Preece's (W. H.) differential galvanometers. W. H. Preece, xx. 40, 64.
- Principles of testing cables. W. H. Preece, xx. 36, 94; C. W. Siemens, 55; Sir C. T. Bright, 71; H. C. Forde, 74; F. Jenkin, 84, 86; G. P. Bidder, 96.
- Rangoon and Singapore cable, testing. C. W. Siemens, xx. 55, 56, 72, 90; J. L. Clark, 64; G. P. Bidder, 65, 103; H. C. Forde, 73; G. Soward, 80; F. Jenkin, 86; Willoughby Smith, 88.
- Testing trough for joints in insulating materials, by J. L. Clark. Sir C. T. Bright, xxv. 4, 6; C. F. Varley, 41; J. L. Clark, 47.
- apparatus for conductivity and insulation. Prof. W. Thomson's marine galvanometer. Sir C. T. Bright, xxv. 11.
- Tests for imperfections of manufacture. C. F. Varley, xxv. 40.
- for insulation. F. C. Webb, xvii. 274, 288, 357.
- Unit of resistance, based on the mechanical equivalent of electricity. F. Jenkin, xx. 87.
- Preece's (W. H.). W. H. Preece, xx. 38.
- by Siemens, Halske, and Co. W. H. Preece, xx. 39; C. W. Siemens, 56; xxi. 517. Coils of resistance, by Messrs. Siemens: C. W. Siemens, xx. 56; xxi. 517.
- Wheatstone's unit of resistance. W. H. Preece, xx. 39.
- parallelogram. W. H. Preece, xx. 39.

**TELEPHONE:—**

- Application of the telephone to determining the magnetic meridian. H. de Parville, lv. 435.
- Mercury telephone. M. Breguet, liii. 395.
- New telephonic transmitter. P. Dumont, lv. 436.
- Origin of sounds in the telephone. Count du Moncel, lviii. 428.
- Singing telephone at the Stevens Institute. H. Morton, liv. 396.
- Some new effects produced in the telephone. Count du Moncel, lv. 436.
- Telephone, lii. 396.
- Telephony. Dr. W. Siemens, liii. 393.
- Transmission of acute sounds by the telephone. E. Hagenbach, lvii. 420.

**TELESCOPE.** "On measuring distances by the telescope." W. B. Bray, xxi. 34.

"Description of a double telescope theodolite." N. Beardmore, i. (1841) 96.

**TELLURIUM**, experiments on the production of, from the Transylvanian gold ore. A. Hauch, xlv. 328.



**TEMPERATURE :—**

Influence of temperature on the specific heat of mercury, *xlvi.* 357.

— on magnetisation. J. M. Gangain, *xvi.* 377.

Spectroscopic measurement of high temperatures. A. Crova, *lvi.* 390.

Temperatura. R. Pictet, *lvii.* 422.

See *Thermometers*.

**TEMPERATURE OF THE AIR :—**

Italy, &c. Temperature in Italy, Algiers, and Spain. G. Wilson, *li.* 214, 215.

Marseilles. Temperature in Marseilles district. G. Wilson, *li.* 213.

Pernambuco. W. M. Peniston, *xxii.* 388; G. O. Mann, *xxiv.* 1.

United States. Range of temperature in the United States. Z. Colburn, *xxii.* 555.

**TEMPERATURE OF COMBUSTION. M. Berthelot, *xlix.* 375.****TEMPERATURE OF THE EARTH :—**

Cornwall. United Mines. J. Taylor, *ii.* (1843), 141; J. S. Enys, 141.

— Cornish mines. H. Mackworth, *xii.* 298.

Deep boring at Searle, Lincolnshire. Prof. E. Hull, *xlix.* 161.

Eaglesbush colliery. J. Richardson, *viii.* 126.

Law of geothermic progression. P. Van Dijk, *lviii.* 392.

Maria mine, increase of temperature in the, *lii.* 391.

Monkwearmouth coal-mine. J. Murray, *vi.* 207.

Nevada. Temperature of the earth, Comstock mines: Prof. J. A. Church; *lvii.* 393; heat due to kaolinization, 395.

Rate of increase of temperature of the earth with the depth. J. S. Enys, *ii.* (1843), 142;—Prof. E. Hull, *xlix.* 161.

Temperatures in the Spereberg borehole. F. Henrich, *lii.* 388.

**TEMPERATURE IN SEWERS: London, W. Haywood, *xxiv.* 325. Paris, 325.****TEMPERATURE OF THE SOIL as affected by drainage. See *Drainage*, under, of land.**

Mont Cenis tunnel. T. Sopwith, *Jun.*, *xxxvi.* 4, 32; G. J. Symons, 23; Sir W. G. Armstrong, 25; H. Maudslay, 26.

St. Gothard tunnel. D. K. Clark, *xlii.* 249, 250; *lvii.* 246.

Temperature of rivers and surface-waters. S. C. Homersham, *lvi.* 165.

— of the sea, Persian Gulf. Sir C. T. Bright, *xxv.* 12.

**TEMPERATURE OF SPRINGS AND WELL-WATER :—**

Cheshunt, sulphureous spring. F. Braithwaite, *ii.* (1843), 143.

Cornwall, water from the United Mines. J. Taylor, *ii.* (1843), 141.

Grenelle, water of the artesian well. Sir J. Robison, *ii.* (1843), 140; W. Cubitt, *Assoc.* 141.

Southampton, temperature of water of wells. F. Braithwaite, *ii.* (1843), 142.

Temperature of land springs and in wells. F. Braithwaite, *ii.* (1843), 141; T. Clarke, *ii.* 142.

Well bored through granite. F. Holland, *i.* (1839), 44.

Wells and springs in the chalk. B. Latham, *xlvi.* 131, 135; Dr. C. W. Siemens, 134; E. Easton, 140; G. J. Symons, 151; J. Lucas, 157; Sir W. Farquhar, 160.

TEMPERATURE OF THE SUN. Actinometric measures made at the summit of Mont Blanc. J. Violle, xiv, 286.

TENT-PIN, screw. A. Mitchell, vii, 131.

TEREDO NAVALIS. See *Sea-worm*.

TERRA-COTTA. C. H. Smith, vii, 61; A. Pellatt, 63; J. Farey, 63.

#### TESTING APPARATUS :—

American testing instrument, Royal Arsenal, Woolwich. R. Mallet, xviii, 317.  
 "Chain-cable and timber testing-machines." T. Dunn, xvi, 301.—Discussion: T. Dunn, xvi, 307; G. Rennie, 307; W. Naylor, 307; J. R. Napier, 308.

Earliest testing machine for chain cables. G. Rennie, xvii, 307.

Machine for testing metals, by tension and flexure, xli, 336.

Machines for testing rails. J. Price, xxxii, 192; E. A. Cowper, 213.

Testing machines for iron and steel. R. Bredt, lv, 408.

Testing machine of German State railways, and tests of rivet joints. Dr. H. Zimmermann, lvii, 322.

— of the Liverpool Corporation. R. Mallet, xviii, 315.

#### TESTS, PROOF LOADS, SAFE LOADS—CAISSON :—

Test of sliding caisson at Keyham dockyard. W. Fairbairn, xiii, 454.

#### TESTS, PROOF LOADS, OR SAFE LOADS—CONCRETE BRIDGE :—

Test for concrete road-bridge, at Vevey. J. Gaudard, lviii, 311.

#### TESTS, PROOF LOADS, OR SAFE LOADS—FLOORS :—

Datum for floors. Maximum weight of a crowd on a floor. W. J. McAlpine, lvii, 202.

Flooring joists of wrought-iron and cast-iron. J. Barrett, xii, 251.

Floors of dock warehouses, Marseilles docks. T. Hawthorn, xxiv, 154.

Load on cast-iron columns, for warehouse floors, Marseilles docks. T. Hawthorn, xxiv, 153.

#### TESTS, PROOF LOADS, OR SAFE LOADS—IRON, CAST-IRON BARS, BEAMS AND GIRDERS :—

Beams of pumping engines: factor of safety. R. Stephenson, vi, 224.

— Factor of safety for cast-iron beams, by Mr. Rennie. Sir J. Rennie, vi, 224.

Girders, deflection tests of cast-iron, Terrace pier, Gravesend. J. B. Redman, iv, 237; table, 244; 247. W. Fairbairn, 247.

— for joint railway station, Manchester. A. S. Jee, xi, 227-232.

— Cast-iron girders for railway viaduct, Salford. J. Hawkshaw, xi, 242, 243.

— Test, or proof load, for girders of the Great Exhibition building, 1851. C. H. Wild, x, 173.

— Test for cast-iron girders for bridge across the Shannon at Portumna. T. Rhodes, iii, 100.

— Test-bars of cast-iron for girders of Terrace Pier, Gravesend. J. B. Redman, iv, 238.

— Tests of trussed girders, or compound girders of cast and wrought-iron. F. Nash, iii, 103.

Tests, proof loads, or safe loads—cast-iron bars, beams and girders—*continued*.

Girders. Tests or safe loads for cast iron flanged girders, Birmingham and Oxford railway. C. B. Lane, xi. 75.

Sleepers, test-bars for cast-iron. G. Berkley, xxx. 225; G. B. Bruce, 266.

Test-bars, cast-iron, for the War Department. Sir C. Fox, xxviii. 418; G. B. Bruce, 266.

— for strong iron. G. Berkley, xxx. 227.

— of cast-iron: variation of transverse strength. A. Ransome, xviii. 358.

Test, simple, for quality of cast-iron at Carron foundry. J. Field, ii (1848), 133.

Transverse strength of cast-iron test-bars for bridge work, by A. Fink. Z. Colburn, xxii. 544.

Wheels, test bars of cast iron for chilled iron. Capt. D. Galton, liii. 87.

TESTS, PROOF LOADS, OR SAFE LOADS—WROUGHT IRON:—

Factor of safety in steam engines and machinery. J. Farey, iv. 346, 347; G. Cottam, 348;—R. Stephenson, vi. 224;—T. Hawksley, xiii. 478.

— for wrought iron in bridges. W. Fairbairn, xiii. 470.

Shearing stress on rivets: Charing Cross bridge: H. Hayter, xxii. 532.

Tests for iron and steel, longitudinal and transverse, by the *Forges et Chantiers*, Marseilles, xli. 336.

— for Ohio river bridge. T. C. Clarke, liv. 196.

Working stress on wrought iron in structures. C. B. Vignoles, xiii. 470.

— on wrought iron in steam engines. E. Humphrys, xiii. 470.

TESTS, PROOF LOADS, OR SAFE LOADS—IRON BRIDGES AND VIADUCTS:—

Maximum crowd on a platform or moving load for road bridges. E. A. Cowper, xxii. 531; R. Mallet, 532; H. Hayter, 532; J. Hawkshaw, 534;—G. W. Hemans, xxvi. 265; R. Richardson, 268; E. A. Cowper, 281; J. H. Porter, 285; C. B. Lane, 289; W. H. Barlow, 308.

Tensile stress in iron girder bridges. J. Hawkshaw, xxv. 257; G. W. Hemans, 258.

Test-loads for bridges and viaducts. W. Fairbairn, ix. 237.—G. H. Phipps, xxv. 251, 259; J. Hawkshaw, 257, 258, 259; G. W. Hemans, 258; W. Atkinson, 258; W. Cubitt, 258; T. E. Harrison, 258; Sir C. Fox, 258.

— for movable bridges. F. E. Duckham, lvii. 49.

Testing the stability of iron bridges. M. Saint-Venant, xlv. 241.

Andé, bridge of, across the Seine. Test-loads. R. Bonnin, xlv. 242.

Aussig, test-load for iron railway-bridge at, Austrian North Western railway. W. Hellwag, xxxix. 322.

Basses Pyrénées, test-load for road iron bridges in the. M. Conte-Grand-champs, xxxix. 318.

Bouble viaduct, Commeny-Gannat railway, test load for the. W. Nördling, xl. 269.

Boyne viaduct. J. Barton, xiv. 453, 455, 458; G. W. Hemans, 467.

Bremer, Ipswich, Queensland, bridge over the. C. D. Fox, xxvi. 54.

Charing Cross bridge: H. Hayter, xxii. 519. Main girder; H. Hayter, xxii. 519. Cross girders, 521, 522; E. A. Cowper, 531.

— Quantity and distribution of stress in the main girders. H. Hayter, xxii. 517; G. H. Phipps, 528, 535; G. W. Hemans, 529; J. M. Heppel,

**Tests, proof loads, or safe loads—iron bridges and viaducts—continued.**

530; F. Wentworth Shields, 532; J. Hawkshaw, 533, 538; J. S. Russell, 534.

Chey-Air bridge, maximum stress in girders of. E. Johnston, xxiv. 188.

Craigellachie viaduct. W. H. Mills, xxv. 235; G. H. Phipps, 251; W. Atkinson, 254. Cross girder, 235.

Danube, on the Buda-Pesth railways, limiting stress in bridge over the. J. Seefehlner, li. 291.

— Test-loads for bridge over the. J. Seefehlner, l. 292.

Desmochado, bridge over river, Central Argentine railway. C. Reilly, xxiv. 394, 455.

Douro, Viaduct over the. Test-loads, li. 303. Testing the viaduct, lvi. 305.

Dublin and Drogheda railway, lattice bridge. G. W. Hemans, iii. 64.

France, tests for iron bridges, in. M. Saint-Venant, xlv. 241.

Holland, test-loads for bridges. D. Hutton, lvii. 74.

Jhelum bridge, India. Test. F. M. Avern, liv. 105; H. Lee-Smith, 109; C. H. Gregory, 110. Lattice girder of the bridge, 102.

Kentucky river bridge, test of, lii. 309.

— Tests, &c. Cincinnati Southern Railway. T. C. Clarke, liv. 184; C. Shaler Smith, 244.

Landore viaduct. L. E. Fletcher, xiv. 500.

Leeds and Liverpool Canal, Liverpool, proof loads and factors of safety of segmental lattice bridges. J. Hawkshaw, xi. 13.

Loch Ken viaduct. E. L. I. Blyth, xxi. 263.

Louisville bridge. Test-load. Sir O. A. Hartley, liv. 242.

Madras railway. Girder bridges. E. Johnston, xxiv. 188.

Newark Dyke bridge, Warren type. J. Cubitt, xii. 604, 607.

New York and Erie railroad. Working stress in an iron bridge. Z. Colburn, xxii. 545.

New York and Long Island bridge, test-loads for, li. 304.

Niagara suspension bridge. C. Manby, xiv. 459.

Ohio river bridge, Cincinnati Southern Railway. Tests, &c. T. C. Clarke, liv. 181; 196.

Paddock Viaduct, near Huddersfield, proof-loads and factors of safety of. J. Hawkshaw, xi. 13.

Port Augusta and Port Darwin railway, South Australia. Test-load Bridges. R. C. Patterson, lvi. 35.

Rhine, Bridge over the, at Basle. Iron bridge work, limiting stress. lvii. 330.

— Test-load. Bridge over the, lvii. 330.

Shannon, on the Midland Great Western railway, bridge across the G. W. Hemans, xiv. 467, 474.

— Bridge over the. G. W. Hemans, xxi. 266.

Southport pier, lattice girders. H. Hooper, xx. 296, 299.

Torksey bridge, ix. 249, 277: deflections, 284.

Ulverstone and Lancaster railway, lattice girders. J. Brunlees, xvii. 446.

United States, ordinary working stress in wrought-iron bridges. Z. Colburn, xxii. 546; F. Jenkin, 567. Whipple-truss bridge, 549. Bollman-truss-bridge, 553. Fink-truss bridge, 554, 557.

— proof-loads for railway bridges: Z. Colburn, xxii. 546, 558. Test of a Bollman-truss bridge, 558.

Tests, proof loads, or safe loads—iron bridges and viaducts—*continued*.

Wey and Arun canal, Horsham and Guildford railway, bridge over the. C. Reilly, xxiv. 394, 455.

Wohlhusen (lattice) bridge over the Emme, Berne-Lucerne railway, test-load for. J. Gaudard, lviii. 314.

Wyham bridge. Test-loads. W. G. Laws, lvi. 270, 272, 273; limiting stress, 273.

#### TESTS, PROOF LOADS, OR SAFE LOADS—STEEL :—

Factor of safety for structures in steel, by Board of Trade. J. Price, lvii. 1;

H. Hayter, 43; W. H. Barlow, 43; F. J. Bramwell, 47; F. E. Duckham, 48.

— by the Dutch Government. D. Hutton, lvii. 74.

Mechanical tests of phosphoric steel. A. L. Holley, liii. 233.

Test for steel rails for Breslau and Freiburg railway. H. Fein, lii. 324.

Tests of the Board of Trade for steel in shipbuilding. E. Reynolds, li. 16.

#### TESTS, PROOF LOADS, OR SAFE LOADS—SUSPENSION BRIDGES :—

Links of Clifton suspension bridge. W. H. Barlow, xxvi. 245. Limiting stress on the chains and suspension rods, 248. Maximum moving load, 248; G. W. Hemans, 265. Dead weight, 249; table, 250.

— of Hungerford suspension bridge. S. Hocking, viii. 278; W. H. Barlow, xxvi. 245.

Load on platforms of suspension bridges. A. Burn, Jun., i. (1840), 52.

Results of tests of Howard's suspension-bars. B. W. Croker, viii. 276, 277, 279.

Stress on links of suspension bridge, Portsmouth. A. Burn, Jun., i. (1840), 53.

#### TESTS, PROOF LOADS, AND SAFE LOADS—TIMBER BRIDGES :—

Calder viaduct, Wishaw and Coltness railway. Timber trussed beam. J. Macneill, ii. (1842), 191.

Howe timber lattice-bridge, over the James river, Danville railroad, United States. J. R. Mosse, xxii. 307, 309.

Improved Howe truss-bridge, Philadelphia and Reading railroad, United States. J. R. Mosse, xxii. 310.

Inflexible arched truss bridge, by D. C. McCallum, United States. J. R. Mosse, xxii. 313, 314, 315.

Nore (timber) viaduct. Capt. W. S. Moorsom, xi. 433.

Portland railroad, type of lattice-bridge on the, xxii. 308, 309.

#### TESTS, PROOF LOADS, AND SAFE LOADS—VARIOUS.

Cable. Table of proof strength of hemp cables and chain cables. T. Dunn, xvi. 301.

Cement (Portland) for the construction of sewers, main drainage of London. J. W. Bazalgette, xxiv. 313; G. R. Burnell, 316; J. Aird, Jun., 346.

— Testing machine for. Metropolitan Board of Works. J. Grant, xxv. 67, 69; T. Bevan, 132.

— Tests for weight and tensile strength of, southern main-drainage works. J. Grant, xxv. 67, 155; G. F. White, 118, 120, 121; J. W. Bazalgette, 124; T. Bevan, 132; F. J. Bramwell, 137; T. D. Ridley, 153.

— Tests of, by the *Ponts et Chaussées*. G. F. White, xxv. 118, 120, 121; T. Bevan, 132.

Tests, proof loads, or safe loads—various—continued.

- Cement. Test of, for street foundations. G. F. Deacon, lviii. 9.  
 — for the construction of sewers, Paris. G. R. Burnell, xxiv. 317.  
 Concrete conduits for sewage irrigation, Paris. Tests. F. Target, liii. 212.  
 Hydraulic presses. Sir C. Fox, xxv. 313.  
 Roofs, datum for. Maximum weight of a fall of snow. W. J. McAlpine, lvii. 202.  
 — Iron roof at Lime Street station, Liverpool. J. Locke, ix. 212.  
 — dock warehouses, Marseilles. T. Hawthorn, xxiv. 155.  
 Ropes. Working loads and factors of safety for iron wire-ropes and steel wire-ropes, at Pribram mines. E. Langer, xlvii. 402, 403.  
 Steam engines, factors of safety in the construction of. J. Farey, iv. 347.  
 — Factors of safety: Marine boilers. T. W. Trail, li. 31; A. Holt, 75; W. Brock, 84; P. Samson, 113, 118; R. V. J. Knight, 180, 184.  
 — Hydraulic test for locomotive boilers: German railways. R. Crawford, xxii. 25.  
 Water-pipes, Ossett waterworks. Testing. M. McC. Patterson, lvi. 279.  
 — Test-pressure for, for hydraulic bars, pumping engine at the Sulzbach-Altenwald colliery. H. Pfæhler, xl. 295.  
 See *Foundations*—supporting power; *Piles*, load on; *Permanent way*—strength of rails; *Railways*—axes.

THEATRE. "Description of Stephenson's theatre machinery." J. B. Birch, i. (1841), 153.

#### THERMOMETER:—

- Electric thermometer. C. W. Siemens, xx. 58.  
 Microtasmeter (to measure infinitesimal differences of temperature or of humidity), liv. 393.

#### TIDAL WAVE:—

- Flood streams surrounding the British Islands. J. B. Redman, xlvi. 77.  
 Influence of winds on the tides, G. P. Bidder, 335, 372, 373, 374; J. Murray, xx. 336; J. T. Harrison, 338; J. S. Russell, 341; A. Giles, 345; Capt. Burstal, R.N., 346; J. G. C. Curtis, 350; R. W. Jackson, 352; W. A. Brooks, 355; J. B. Redman, 357; P. Bruff, 358; A. Bremner, 358.  
 Nature of the tidal wave. J. T. Harrison, vii. 356; J. S. Russell, 363.  
 Some facts about the great tidal wave, May 1877. J. P. Josephson, lviii. 441.  
 Tidal action of rivers: Influence of form of estuary. W. A. Brooks, xxvi. 461.  
 Tidal wave as affected by estuaries. J. C. Curtis, xx. 20.  
 Velocity of the tides. J. Murray, xx. 318, 319, 324, 325, 329-332; J. S. Russell, 343, 344.  
 — of tidal wave. A. Cialdi, xlvi. 365.

Clyde. W. Bald, v. 322.

- English coast, tidal wave round the. C. Greaves, xlix. 140; Sir J. Coope, 145.  
 — South coast, tidal wave. G. H. Kinahan, xlv. 217.  
 Holland (North). G. B. W. Jackson, vi. 104; vii. 236.  
 Hooghly, tidal wave in the. J. A. Longridge, table, xxi. 13; J. Murray, 27.  
 Mersey, xlvi. 21, 59.

Tidal wave—*continued.*

Mutla, tidal wave in the. J. Murray, 27.

North Sea, tidal wave. J. T. Harrison, vii. 332, 337, 339; J. S. Russell, 363.

Tyne. W. A. Brooks, xxvi. 401

## TIDES—British Islands:—

Diagram of the rise and fall of a 15-foot tide. J. M. Heppel, xxiii. 172;  
G. W. Hemans, 180.

General datum line for Great Britain, by J. R. McClean. W. Parkes, v. 309;

J. S. Russell, 311; J. Walker, 311; Sir J. Rennie, 311; I. K. Brunel, 312;

J. Taylor, 312; J. F. Bateman, 313; J. Thomson, 314.

— line for Ireland. G. W. Hemans, v. 311.

Table of high water at different places on the English and French coasts.  
J. T. Harrison, vii. 358.

Tides on the English coast; tables of, vii. 388.

Variety of the tidal rise in British seas. J. B. Redman, lv. 59.

Avonmouth. J. B. Mackenzie, lv. 6.

Belfast harbour. T. R. Salmond, lv. 35.

Blyth, influence of the harbour works, at on the rise of the tide in the river

Blyth. J. Murray, xviii. 97; J. Abernethy, 115.

Channel Islands. W. H. Preece, xx. 27.

Clyde, at Glasgow. W. Bald, v. 314, 315.—J. F. Blair, xxix. 19.—J. Deas,  
xxxvi. 131.

— Frith of. J. Deas, xxxvi. 131, 154, 171; J. B. Redman, 175; Lord  
Blantyre, 179; J. T. Harrison, 188; W. Shelford, 188; D. T. Fender, 192.

Cromarty frith. J. Murray, xx. 327.

Dee, Aberdeen. W. D. Cay, xlix. 154.

Deptford, Southampton, and Ipswich. Law of individual tides at. Sir G. B.

Airy, xlix. 122; J. S. Russell, 132; W. Parkes, 136; C. Greaves, 139;

G. H. Phipps, 140; Sir J. Coode, 143.

Forth, Frith of. J. S. Russell, v. 313.

Fundy, Bay of. T. Hawksley, xx. 24; J. Murray, 24; G. P. Bidder, 25. ;

Harwich, tide at. G. Hurwood, xx. 16.

Hull. J. Timperley, (T.) i. 3, 50, 52.

Humber. E. H. Clark, xxiv. 53.

— Tidal observations on the. W. Shelford, xxviii. 488, 491, 512.

Mersey: J. Ellacott, xxviii. 519.—J. N. Shoolbred, xlv. 43, 49. Influence  
of dock walls at Liverpool and Birkenhead, on the tides. J. N. Shool-  
bred, xlix. 119.

Murray frith. J. Murray, xx. 323.

Nene. W. Shelford, xlix. 117; J. Abernethy, 131; Sir J. Coode, 145;  
G. R. Stephenson, 154.

North Sea. 'Node' points in the North Sea. J. Murray, xx. 318, 337,  
366; J. S. Russell, 344.

— Ebb tide in the. J. Murray, xx. 322.

— Tides in the. J. Murray, xx. 315, 337, 370.

— Double tides caused by Dogger Bank. J. Murray, xx. 337, 363; J. S.

Russell, 341; W. A. Brooks, 345, 355; Capt. W. S. Moorsom, 356. Orwell, at  
Ipswich. G. Hurwood, xx. 12.

— Tidal phenomena of the, and the Stour. J. G. C. Curtis, xx. 18, 23;  
G. P. Bidder, 25.

**Tides—British Islands—continued.**

- Ribble River, Lytham. D. Stevenson, (T.) iii. 379.  
 Severn, River, W. Parkes, v. 302, 307. The 'bore,' 304; J. G. C. Curtis, xix. 537;—T. Hawksley, xx. 24.  
 — and the Bristol Channel. H. Law, xlix. 130; W. Parkes, 137; C. Greaves, 140; Sir J. Coode, 145; E. L. Williams, 158.  
 Silloth Bay. J. Abernethy, xxi. 325.  
 Southampton. A. Giles, liv. 39. Diagram of the tide: J. Murray, xx. 363.  
 Sunderland. J. Murray, vi. 275. Sunderland docks: J. Murray, xv. 444.  
 Swansea, River Tawe. J. Abernethy, xxi. 309.  
 Swilly Lough. J. W. Bazalgette, i. (1840), 42.  
 Thames. J. Walker, i. (1839), 67.  
 — range of the tide. J. W. Bazalgette, xiii. 93; J. Simpson, 94;—J. B. Redman, xv. 211; N. Beardmore, 231.  
 — Tides in the. S. W. Leach, xix. 111; T. Hawksley, 118; G. P. Bidder, 128;—J. B. Redman, xlix. 74, 79, 97, 115, 147; tables, 99–110, 112–114; W. Shelford, 116; J. N. Shoolbred, 118; Sir G. B. Airy, 122; Capt. Burstal, R.N., 124; table, 125, 126; H. Law, 130; J. Abernethy, 131; J. S. Russell, 134.  
 — Tides in. J. B. Redman, liv. 35.  
 — Standard low-water zero in the, xlix. 127.  
 — Influence of the embankments of the, on the tides. J. B. Redman, xlix. 82, 87; O. E. Coope, 115; W. Shelford, 116; H. Law, 130; J. S. Russell, 135; W. Parkes, 136; C. Greaves, 138; Sir J. Coode, 144; E. Roberts, 155.  
 — Influence of Teddington lock. W. Shelford, xlix. 118; J. Abernethy, 132; G. H. Phipps, 142.  
 Tyne. Tidal flow in the River Tyne, improved by the enclosure of Jarrow Slake for the construction of Tyne docks. T. E. Harrison, xviii. 490, 517; W. A. Brooks, 412, 513;—Capt. Calver, xxxvi. 183; G. R. Stephenson, 189.  
 Tide as affected by the piers at the entrance: T. E. Harrison, xviii. 519.  
 Wash. J. B. Redman, xlv. 78; Sir J. Coode, 78.  
 Wear. J. Murray, xviii. 98.  
 Whitehaven. Sir J. Rennie, vi. 147.  
 Wick. J. Bremner, iii. 117.

**TIDES—FOREIGN COASTS:—**

- Atrato, Atlantic Ocean. F. M. Kelley, xv. 390.  
 Baltic Sea, currents and tides in the. G. P. Bidder, xx. 335, 372.  
 Bilbao, Spain, tides at the bar at. F. C. Barron, li. 257.  
 Black Sea. C. A. Hartley, xxi. 282. Water level affected by winds, 283.  
 Boulogne. C. Bergeron, lv. 78.  
 Calcutta, tide at. B. Leslie, liii. 4; E. Benedict, 24.  
 Copenhagen. J. Murray, xx. 367; G. P. Bidder, 372.  
 Denmark, coasts of. J. Murray, xx. 364.  
 Flushing, lv. 373.  
 Holland (North). G. B. W. Jackson, vi. 105.  
 — Dutch coast and rivers. G. B. W. Jackson, vii. 237, 238–240.  
 — Coast of Holland. J. Murray, xx. 337.  
 Hooghly, 1843, 1844. J. A. Longridge, xxi. 12.



**Tides—foreign coasts—continued.**

- Marseilles. T. Hawthorn, xxiv. 147.  
 Mutla. J. A. Longridge, xxi. 18.  
 Norway. J. Murray, xx. 337.  
 Pacific Ocean, New River. F. M. Kelley, xv. 390.  
 Red Sea, Dædalus Reef. W. Parkes, xxiii. 4.  
 Schleswig. Tidal and stream observations on the west coast of Schleswig.  
 O. G. Brunn, lii. 372.

**TIMBER—General References:—**

- Australia (South), timber in. C. T. Hargrave, l. 161.  
 — Qualities of Australian timber. F. Wentworth Sheilda, xxii. 258.  
 Bamboo, size and hardness of. W. T. Doyne, xxii. 64.  
 Bathurst, New Brunswick, specimen of white cedar from. Mr. Churchill,  
 i. (1840), 44.—Discussion: J. J. Hawkins, i. (1840), 44; I. K. Brunel,  
 45; J. Horne, 45.  
 Brazil, timber in. W. M. Peniston, xxii. 396, 402; C. B. Lane, 409; E. B.  
 Webb, 413; F. Wentworth Sheilda, 414; J. Whitfield, 415;—G. O. Mann,  
 xxiv. 10. Specific gravity, 13.  
 — Use of native timber of, in railway construction. C. B. Lane, xxii.  
 410; E. B. Webb, 413.  
 Chemical composition of wood. O. C. D. Ross, xl. 161;—C. A. Oppermann,  
 lii. 294.  
 “Dowelling timber, mode of, or of combining it and other materials for  
 general purposes.” Sir M. I. Brunel, i. (1840), 6.  
 Fir timber from the north-west coast of America, by G. R. Burnell,  
 xviii. 294.  
 Foreign timbers principally imported. H. P. Burt, xii. 212.  
 Japanese woods. R. H. Brunton, xlvii. 9.  
 Panama, woods of the Isthmus of. E. Hopkins, ix. 77; Lieut.-Col. Lloyd, 84.  
 Scinde, various woods in. J. Brunton, xxii. 465.  
 Timber in the tropics: times for cutting down. E. Hopkins, xix. 257.  
 Weight of timber. H. P. Burt, xii. 210, 211, 215.  
 — of Jarrah wood. H. P. Burt, xxii. 256.

**TIMBER—DECAY:—**

- Ants (white), destruction of timber in India by. J. Brunton, xxii. 496.  
 — Attacks of, or termites, on wood. Adml. Sir E. Belcher, xxiii. 29.  
 Gun-carriage destroyed by white ants, 29.  
 Covent Garden Theatre. “Decayed bond timbers in the walls of Covent  
 Garden Theatre.” B. Albano, vi. 255. (1 plate.)  
 Dry rot. H. P. Burt, xii. 209; J. T. Cooper, 230.  
 Decay of timber due to *eremacausis*. P. H. Boutigny, xii. 239.  
 Hull docks, moorings at. J. Timperley, (T.) i. 6.  
 Poles. General causes of the destruction of wooden poles. M. Bourseul,  
 xli. 261.  
 Sea water, action of, on timber. J. Paton, ix. 35.  
 Worm. Trunks of trees attacked by the sea-worm. Admiral Sir E.  
 Belcher, xxiii. 29.  
 — Ravages of marine worms in fresh water. W. Shears, vi. 50. In salt  
 water, Southampton pier: J. M. Rendel, xii. 242;—Capt. Sir E. Belcher,  
 xxiii. 59.

**Timber—Decay—continued.**

- Worm. Action of the worm on kyanised timber in sea-water. J. Cooper, i. (1840), 69.
- "Effects of the worm on kyanised timber exposed to the action of sea water, and on the use of greenheart timber from Demerara, in the same situations." J. B. Hartley, i. (1840), 84.
- "Remarks on the ravages of the worm (*Teredo navalis*) in timber." R. Davison, ii. (1842), 90.
- Fender piles of the new Terrace pier at Gravesend, attacked by the pipe-worm (*Teredo navalis*). J. B. Redman, iv. 77, 239.
- Attacks of marine worms. J. Paton, ix. 24, 27; G. Edwards, 45; G. B. W. Jackson, 46.
- Action of marine worm on native timber, Bay of Rio de Janeiro. E. B. Webb, xxii. 413.

**TIMBER—DURABILITY :—**

- Brazil, timber of. E. B. Webb, xix. 244;—G. O. Mann, xxvi. 4, 5, 13.—E. B. Webb, xxvii. 574.
- Greenheart. J. B. Hartley, i. (1840), 84; J. M. Rendel, 234, 243.
- Jarrah wood, ix. 40. Weight: H. P. Burt, xxii. 256.
- Timber in tropical climates. W. J. W. Heath, xxiv. 16; G. Berkley, 18; J. Hawkshaw, 18; J. Brunlees, 20; G. B. Bruce, 21; H. P. Burt, 22; G. Turnbull, 22; General Sir A. Waugh, 24; Colonel Sale, 25; C. H. Gregory, 25; C. B. Lane, 27; J. Bethell, 30; F. W. Sheilda, 32; J. Calvert, 34.
- Yellow pine. J. Hawkshaw, xii. 229.

**TIMBER—PRESERVATION :—**

- Historical notice of processes. H. P. Burt, xii. 215;—R. P. Brereton, xxxi. 160.
- Boucherie's (Dr.) process: metallic salts. J. Taylor, ii. (1842), 87; J. Bethell, 88.
- Boutigny's process: carbonisation, &c. P. H. Boutigny, xii. 239.
- Burnett's process (chloride of zinc). W. H. Burt, xii. 217; J. Bethell, 224; J. Hawkshaw, 230; Lieut. Jackson, 230; J. T. Cooper, 231; I. K. Brunel, 233; Lieut. Jackson, 240, 266;—J. Brunton, xxii. 495.
- Coal tar. Preservation of timber with coal-tar pitch. J. J. Wilkinson, ii. (1842), 67; G. Lowe, 67; J. Horne, 68. With coal-oil: Lieut. Oldfield, ii. (1842), 68; J. Bethell, 68.
- Destruction of white ants with coal tar, &c. F. W. Sheilda, xxiv. 33; J. Calvert, 34.
- Creosoting, Bethell's process for preserving timber by. J. Bethell, ii. (1842), 88; ix. 50, 57;—J. M. Rendel, ix. 53;—J. Bethell, xi. 295. Results of experiments, xii. 222; I. K. Brunel, 233; C. B. Vignoles, 234; R. Davison, 235; G. P. Bidder, 241; J. M. Rendel, 242.—H. P. Burt, xxii. 255.
- Strength of creosoted timber. H. P. Burt, xii. 223; J. Bethell, 229.
- Durability of creosoted timber. M. Scott, xix. 616; G. Burnell, 665;—S. B. Boulton, xxvii. 564; H. Conybeare, 566; C. B. Vignoles, 572 A. Giles, 573.
- Creosoting Indian woods. H. P. Burt, xxii. 255; J. Coode, 258; A. Bryce, 259; C. Greaves, 260.—G. Turnbull, xxiv. 23.

## Timber—preservation—continued.

Creosoting. Wood preserving by creosote: Hayford process. E. R. Andrews, lvi. 800.

Desiccation of timber by hot-air currents. R. Davison, xii. 235; Mr. Lovell, 237.

Durability of timber in Ceylon. W. J. W. Heath, xxiv. 16. Preservation of, 16. Creosoted timber, 16.

Earth oil, preservation with. G. Turnbull, xxiv. 24.

(Fréret's system) preservation of wood. C. A. Oppermann, lii. 293.

(Hatzfeld's process: tannic acid.) Preservation of timber. L. Boulart, xlv. 322.

Kyan's process: corrosive sublimate. Kyanising timber for the Hull and Selby railway. J. Timperley, i. (1841), 91; G. Lowe, 91; Mr. Cooper, 91;—J. Bethell, xii. 224; J. Hawkshaw, 230; Capt. Moorsom, 231; J. Walker, 232; G. P. Bidder, 241.

— "Description of the tanks for kyanising the timber for the Hull and Selby railway." J. Timperley, ii. (1842), 80; J. Walker, xii. 232.—Discussion; T. Oldham, ii. (1842), 81; J. Simpson, 82, 83; W. Newton, 82; H. R. Palmer, 82; F. Braithwaite, 83, 86; C. May, 83, 85; W. Cubitt, V.P., 83; W. Cubitt, 85; J. Walker, 84; J. Taylor, 84, 87; Lieut. Oldfield, 84; J. Colthurst, 84; Mr. Moss, 84; S. Seaward, 85; H. Martin, 85; W. Cowper, 85; Gen. Pasley, 85; W. Bull, 86; Mr. Thompson, 86; J. Horne, 87; J. Bethell, 88; Prof. Brande, 89.

— Strength of kyanised timber: Capt. W. S. Moorsom, xii. 231.

— Kyanising Indian wooden sleepers: J. J. Berkley, xix. 604.

— Durability of kyanised timber. A. Giles, xxvii. 573.

Lapenot's process: carbonisation. L. Boulart, xlv. 323.

Margary's process: salts of copper. J. Bethell, xii. 224; Capt. W. S. Moorsom, 232.

Metallic protection—Sheathing; broad-headed metallic nails. J. B. Hartley, i. (1840), 85. Lock-gates at Flushing, lv. 373.

"Nature and properties of timber, with descriptive particulars of several methods now in use for its preservation from decay." H. P. Burt, xii. 206. (1 plate.)—Discussion: H. P. Burt, xii. 223; J. Bethell, 223, 234; J. Hawkshaw, 229; Lieut. Jackson, R.N., 230, 240; J. T. Cooper, 230; Capt. Moorsom, 231; J. Walker, 232; J. M. Rendel, 233, 242; I. K. Brunel, 233; C. B. Vignoles, 234; R. Davison, 235; P. H. Boutigny, 239; G. P. Bidder, 241; J. E. Errington, 241.

Payne's process: muriate of lime and sulphate of iron. J. N. Warren, ix. 52, 57; G. P. Bidder, 56;—H. P. Burt, xii. 217; J. Bethell, 225; J. Hawkshaw, 230; G. P. Bidder, 241.

Preservation of timber in rock salt. R. Adie, iv. 329.

See *Permanent way*—timber sleepers; *Piles and Pile-driving*; *Ships and Steam vessels*—sheathing; *Strength of materials*, Timber.

TIN. "On the methods generally adopted in Cornwall in dressing tin and copper ores." J. Henderson, xvii. 195.—Discussion: See *Copper ores*, treatment of.

TORPEDOES, explosions under water with reference to. Capt. Moisson, l. 299.

TORPEDO-VESSELS. J. Donaldson, li. 65.

**TOWING**:—On towing by chains on the river Elbe. F. Bauer, l. 216.

See *Canals*, Canal boats; *Canals*, steam power on.

**TRACTION ENGINE**. See *Roads*, common, locomotion on.

**TRADE**:—

Foreign trade of London and Liverpool. J. B. Redman, xlix. 111, 147.

Shipping returns: East coast, from the Thames to the Wash: table. J. B. Redman, xxiii. 224, 226.

Trade of the river Clyde. J. Deas, xxxvi. 156.

— of Kurrachee harbour. J. Brunton xxii. 453, 454.

Traffic of Grimsby docks. E. H. Clark, xxiv. 53.

— across the Alps. Sir C. P. Roney, xxvi. 331.

See *Coal trade*.

**TRAMWAYS**:—

Asphalt tramways. E. Chadwick, l. 49.

Construction of tramways. R. Souttar, l. 1; J. B. Huntington, 30; A. M. Fowler, 34; J. Livesey, 35; J. H. Lynde, 36; R. C. Rapier, 37; C. H. Beloe, 40; E. A. Cowper, 44; G. F. Deacon, 55; A. O. Schenk, 57.

Cost (first) of tramways. R. Souttar, l. 18, 50; table, 24; J. B. Huntington, 27, 30; W. Lawford, 37; R. C. Rapier, 40.

Differential tramway at the stone quarries of Laufen, lvii. 346.

Durability of tramway sleepers. R. Souttar, l. 2, 9, 10.

Gauges of tramways. W. Martineau, l. 42.

Granite tramways. E. Chadwick, l. 49.

Inclined tramways at the fortress of Glatz, Silesia. H. Wickfeld, li. 320.

Iron permanent way for street tramways. Hr. Böttcher, liv. 330.

Pavement for tramways. R. Souttar, l. 4; J. B. Huntington, 30; A. M. Fowler, 35; J. H. Lynde, 36; W. Lawford, 36; C. H. Beloe, 40; G. F. Deacon, 54.

Pioneer, or steam caravan. J. L. Haddan, lvi. 61.

Rope. Endless-rope tramways at San Francisco. M. Lavoinne, lii. 337.

— Rope tramway at Strasburg. A. Bleichert, li. 321.

Steam tramway between Cassel and Wilhelmshöhe. E. Heusinger von Waldegg, lii. 338.

Stone tramways. Historical notice. Sir J. Rennie, v. 75.

— Commercial Road, London; table of wear, by Mr. J. Walker, (T.) i. 233;

— J. B. Redman, lviii. 52; L. H. Isaacs, 77.

— Liverpool. G. F. Deacon, lviii. 28.

— Italy. E. Chadwick, C.B., lviii. 70.

"Street tramways." R. Souttar, l. 1. (1 plate.)—Discussion: J. B. Huntington, l. 27; J. Head, 32; J. A. Longridge, 32; A. M. Fowler, 34; J. Livesey, 35; J. H. Lynde, 36; W. Lawford, 36; R. C. Rapier, 37; C. H. Beloe, 40; W. Martineau, 42; E. A. Cowper, 44; E. Perrett, 44; C. B. King, 46; W. Hancock, 47; E. Chadwick, C.B., 48; G. Hopkins, 50; R. Souttar, 50; G. R. Stephenson, 53; G. F. Deacon, 53; H. Hughes, 57; A. O. Schenk, 57.

Wire. Self-acting wire tramway at the Porte de France cement works, near Grenoble. M. Gariel, xlix. 351.

— at the Hanover gas works, xlvii. 340.

— between Ouchy and Lausanne. G. Meissner, l. 250.

**Tramways—continued.**

Wire-rope conveyance. M. Korting, lii. 340.

Belgium, tramways in. M. Raillard, xlv. 290.

Budmeiss, Linz, and Gmünden tramway. R. Crawford, xxii. 3.

Festiniog district: tramway at slate quarries. A. H. Langley and C. J. Bellamy, xlv. 214, 220.

Indian tramways. C. D. Fox, xxvi. 51.

Lisbon and Cintra tramway: Larmanjat's system. H. Chapman, xxxvi. 98; J. Head, 101.

Milan-Saronno tramway. Com. F. Biglia, liii. 348.

New Zealand. Tramways in Canterbury. E. Dobson, xxix. 118.

Paris, tramways of, and Versailles. C. A. Oppermann, xlii. 300.

— tramways in. M. Rousselle, li. 319.

— tramways of, lvi. 326.

— omnibus and tramway company, liv. 333.

Wootton. Duke of Buckingham's tramway at Wootton. Dr. Pole, xxxv. 432; —W. Lawford, l. 37;—J. F. L. Jetter, lvi. 47.

**TRAMWAYS—TRAMWAY CARS AND WAGONS:—**

Cars by John Stephenson and Co., New York. R. Souttar, l. 20.

Weight and capacity of cars and wagons by the Starbuck Car and Wagon Company. W. Martineau, l. 42.

**TRAMWAYS, MECHANICAL POWER ON:—**

Adhesion for mechanical traction. J. Head, l. 32; J. A. Longridge, 32; H. Hughes, 57.

Compressed-air tramway locomotive, by Major Beaumont, R.E. H. Robinson, xlix. 20.

— tramway car (Mekarski's), xliii. 383. M. Mekarski, xlv. 254.

— Mekarski's. H. Robinson, xlix. 20;—R. Souttar, l. 17; J. A. Longridge, 33; G. Hopkins, 50.

— by Mr. Scott-Moncrieff. H. Robinson, xlix. 20;—R. Souttar, l. 16; cost of working, 20; H. Hughes, 57.

— Cost of working tramways by. M. Mekarski, liv. 332. See also xlv. 256.

— *versus* horses for tramcars. M. Mekarski, xlv. 256. Compressed air cars *versus* horse-omnibuses, liv. 332.

(Fireless locomotives) locomotive without fire. M. S. Pichault, xxxix. 347.

— xlv. 289. Francq's locomotive, 289.

— for tramways. M. Francq, lv. 399.

— Principal kinds of. M. Lavoinnie, lvi. 324;—Lamm's, 324; Scheffler's, 325; Francq's, 325.

— Francq's hot water tramway locomotive. M. Rousselle, li. 320.

Separate engine *versus* steam-car. L. J. Todd, xxxvi. 81; J. Grantham, 95;

—R. Souttar, l. 13, 52; J. Head, 32; J. A. Longridge, 32; E. Perrett, 44; R. Souttar, 52; G. R. Stephenson, 53; H. Hughes, 57.

Steam locomotion on tramways. H. Gore, xxxvi. 91; J. Grantham, 94; R. C. Ransome, 95, 96; J. Head, 52, 101; R. J. Quelch, 91;—R. Souttar, l. 12; G. Hopkins, 50.

Steam on street railways, li. 317.

Tramway locomotives. Com. F. Biglia, liii. 347.

**Tramways, mechanical power on—continued.**

- Aveling and Porter's traction engines on the Wootton tramway. W. Lawford, l. 37.
- Baldwin steam tram-car, Philadelphia, li. 317.
- Belgian Metallurgic Company, steam tramway locomotive, by the. Com. F. Biglia, liii. 347.
- Grantham's (J.) steam tram-car. J. Head, xxxvi. 54; J. Grantham, 80; L. J. Todd, 82; H. Gore, 92;—R. Souttar, l. 14.
- Hughes's steam tramway locomotive. R. Souttar, l. 12, 15, 57; H. Hughes, 57;—Com. F. Biglia, liii. 347.
- Krauss's steam tramway locomotive. Com. F. Biglia, liii. 348, 349.
- Merryweather's steam tramway locomotive. R. Souttar, l. 15;—M. Rousselle, li. 320;—Com. F. Biglia, liii. 348.
- tramway locomotives on the Cassel and Wilhelmshöhe tramway. E. Heusinger von Waldegg, lii. 339.
- Perkins's steam tramway locomotive. M. Raillard, xlv. 290.
- Perrett's steam tram-car. E. Perrett, l. 46.
- Potter, Bell & Co., steam tramway locomotive, by. Com. F. Biglia, liii. 348.
- Ransom steam tram-car, Philadelphia, li. 318.
- Rowan's steam tram-car. Com. F. Biglia, liii. 348.
- Todd's (L. J.) steam tramway locomotive. J. Head, xxxvi. 53; L. J. Todd, 75, 81; H. Gore, 91.
- Tractional resistance on tramways. J. A. Longridge, l. 33;—Com. F. Biglia, liii. 349.

**TRAMWAYS—RECEIPTS AND EXPENSES:—**

- Comparative cost for conveyance by tramway, omnibus, and railway. J. B. Huntington, table, l. 31.
- Compressed-air power *versus* horse power. M. Mékaraki, liv. 332.
- Gas-engine power. J. A. Longridge, l. 34.
- Horse power. R. Souttar, l. 19; J. B. Huntington, 28.
- Pneumatic power. H. Robinson, xlix. 20; R. Souttar, 20; J. A. Longridge, 33.
- Receipts and working expenses. R. Souttar, l. 18; tables, 25, 26; W. Lawford, 37.
- Steam power. R. Souttar, l. 19; J. B. Huntington, 29; W. Lawford, 37; W. Martineau, 43; G. Hopkins, 50.
- *versus* horse power. Wootton tramway: W. Lawford, l. 37. Paris tramways: C. B. King, l. 46;—E. Heusinger von Waldegg, lii. 338.

**TRIANGULATION. See Surveying.****TUGBOATS:—**

- "Description of the engines on board the iron steam tug 'The Alice.'" J. Patriok, i. (1840), 54, 68.
- Tugboats on the Rhone. M. Villaret, xxxix. 404.
- towing by chains on the River Elbe. F. Bauer, l. 216.
- See *Canals*, steam power on.

**TUNNELLING:—**

- "Casualties of tunnelling, with examples." W. M. Peniston, xiii. 475.—

Tunnelling—*continued*.

- Discussion: W. M. Peniston, xiii. 477, 478; F. Braithwaite, 477; N. Wood, 477; J. E. Errington, 476; J. Simpson, 478.
- Principles of tunnelling in rock. A. E. Baldwin, xlix. 233. Blasting rock: R. Mallet, xxiii. 298; J. Hawkshaw, 308;—O. Webb, xxxv. 23.
- Tunnelling in rock: Hand labour *versus* machine work. Mont Cenis tunnel. T. Sopwith, Jun., xxiii. 267, 269, 290, 309, 311; R. Mallet, 297, 298; W. Eckersley, 300; E. Hopkins, 307; J. B. Fell, 314; J. F. Bateman, 317.
- in London clay. A. E. Baldwin, xlix. 238.
- use of iron (centering) in tunnelling. Hr. von Oer, liii. 367.
- Usual forms of section of tunnels. A. E. Baldwin, xlix. 233, 234, 236.

## TUNNELS:—

- Historical notice of English tunnels. Sir J. Rennie, v. 35.
- Cost of various tunnels, in chalk, sand, and clay. J. G. Fraser, xxii. 381, 383.
- of tunnels in rock. W. Eckersley, xxiii. 299; E. Hopkins, 307.
- Table of length, strata, and cost of some tunnels in England. J. G. Fraser, xxii. 381.

Altenburg tunnel. H. von Oer, liii. 367.

Beechwood. "An account of the repairs done to the Beechwood tunnel upon the London and Birmingham railway, September 1840." T. M. Smith, i. (1841), 142.

Bilbao tunnels on the line of the Bilbao Iron Ore Company's railway. F. C. Barron, li. 239.

Birmingham and Oxford railway. C. B. Lane, xi. 77.

Channel. "On the geological conditions affecting the construction of a tunnel between England and France." J. Prestwich, xxxvii. 110. (2 plates).—Discussion: H. Willett, xxxvii. 146; E. Hull, 146; W. Low, 147; J. Evans, 148; S. C. Homersham, 149; Warrington Smyth, 150; J. W. Bazalgette, C.B., 152; W. Topley, 153; Capt. H. W. Tyler, 155; Prof. Ramsay, 157, 163; Sir J. Hawkshaw, 159, 168; R. Rawlinson, C.B., 162; J. F. Bateman, 163; R. Aitken, 166; F. W. Sheilda, 166; G. B. Bruce, 168; J. Prestwich, 169.

Cochem tunnel. F. Rziha, l. 241.

Dudley tunnel, Birmingham canal. J. R. Walker, xix. 265.

Elm-Gemanden and Bebra-Friedland railways, the tunnels on the. F. Rziha, l. 242.

Geolong water supply. Anakie and other tunnels. E. Dobson, lvi. 121.

Germany, tunnels in. R. Crawford, xxii. 12.

Great Western railway. "Description of the tunnels situated between Bristol and Bath, on the Great Western railway, with the methods adopted for executing the works." C. Nixon, ii. (1842), 138.—Discussion: C. Nixon, ii. (1842), 139; Dr. Buckland, 139; T. Sopwith, 141; W. Bull, 141.

Henares canal, Spain, tunnel on the line of. G. Higgin, xxvii. 493.

India, Western, tunnels in. J. J. Berkley, xix. 608.

Kobe-Osaka railway, Japan, tunnel on the. W. F. Potter, lvi. 3.

Liège. Short tunnel on the junction railway through Liège. M. Debeil, liv. 313.

Lindal. "On the construction and enlargement of the Lindal tunnel, on the Furness railway." F. O. Stileman, xix. 229. (1 plate).—Discussion:

## Tunnels—continued.

- F. C. Stileman, xix. 238, 239; J. Hawkshaw, 238; J. Fowler, 238; G. Knight, 238; J. Walker, 239; G. P. Bidder, 239.
- Lydgate and Buckhorn Weston. "Description of the Lydgate and of the Buckhorn Weston railway tunnels." J. G. Fraser, xxii. 371. (1 plate.)  
—Discussion: J. G. Fraser, xxii. 381; C. B. Lane, 381; J. Hawkshaw, 383.
- Lyttleton tunnel, New Zealand. E. Dobson, xxix. 120.
- Marseilles canal, tunnel on the line of the. G. Rennie, xiv. 194; W. Pole, 203; R. W. Mylne, 212.  
— Railway tunnel from old port of Marseilles to Prado station. P. Ferrié, lvii. 333.
- Montbenon tunnel, Lausanne-Ouchy railway, liii. 334.
- Mont Cenis. "The actual state of the works on the Mont Cenis tunnel, and description of the machinery employed." T. Sopwith, Jun., xxiii. 258. (3 plates.)—Discussion: G. Neumann, xxiii. 287; T. Bartlett, 288; D. S. Sutherland, 291; T. Brassey, 295, 296; R. P. Brereton, 296; E. A. Cowper, 296; R. Mallet, 297; C. H. Smith, 299; W. Eckersley, 299; C. H. Gregory, 300; F. W. Shields, 300; F. J. Bramwell, 301; E. Hopkins, 307; J. Hawkshaw, 308; G. P. Bidder, 308; T. Sopwith, Jun. 309, 319; J. B. Fell, 319; W. C. Harrison, 317; J. F. Bateman, 317; J. S. Russell, 318; J. Brunlees, 319.  
— prospects of. Sir C. P. Roney, xxvi. 334.  
— T. Sopwith, Jun., xxxvi. 1. (2 plates.)—Discussion: G. J. Morrison, xxxvi. 16; Major Beaumont, R.E., 17; E. A. Cowper, 21; G. J. Symons, 23; T. J. Bewick, 24; W. E. Rich, 25; Sir W. G. Armstrong, 25; H. Maudslay, 26; W. W. Evans, 27; T. Sopwith, Jun., 30.
- Moorhouse tunnel, New Zealand. E. Dobson, xxix. 105, 106, 122.
- Moseley tunnel, Birmingham and Gloucester railway. Capt. Vetch, iii. 369.
- Netherton. "Description of the works on the Netherton tunnel branch of the Birmingham canal." J. R. Walker, xix. 263.
- Recife and São Francisco railway. W. M. Peniston, xxii. 394.
- St. Gothard tunnel, xxxix. 325.  
—"The St. Gothard tunnel." (S.) D. K. Clark, xlii. 228. (Second Paper.) (S.) D. K. Clark, lvii. 239.  
— ranging the centre line. C. Dolezalek, liv. 288.
- Saltwood. "Results of the application of horse power to raising water from the working shafts at Saltwood tunnel, on the South Eastern railway, in 1842." F. W. Simms, ii. (1843), 112.—Discussion: see *Horses*, power of.
- San Pedro tunnel, Santiago and Valparaiso railway. W. Lloyd, xxiii. 383.
- Simplon tunnel. MM. Huber and Lommel, lvi. 308.
- Sonnstein tunnel, construction of the, with special reference to Brandt's boring machine. R. von Grimburg, liii. 368.
- Spitzberg tunnel. A. Ståne and E. Pascher, liv. 350.
- Stapleton tunnel, on the Bristol and Gloucester railway. C. B. Lane, xxii. 381.
- Sydenham. "On tunnel construction, and on the Sydenham tunnel, London, Chatham, and Dover railway." (S.) A. E. Baldwin, xlix. 232. (1 plate.)
- Thames. On the selection of the site. I. K. Brunel, ix. 18. Borings for the tunnel, 18, 19. Depth of soil and of water over the tunnel: H. Hayter, xlix. 129; H. Law, 131.



Tunnels—*continued*.

- Thames. "Notice concerning the Thames tunnel." R. Beamish, i. (1837), 32.—Discussion: M. I. Brunel, i. (1837), 83, 84; J. Gibbs, 35.  
 — Gases discharged in the Thames tunnel, i. (1838), 41. Sand and water discharged, i. (1839), 44.  
 — "An account of the actual state of the works at the Thames tunnel, June 23, 1840." Sir M. I. Brunel, i. (1840), 85.  
 — Poling boards of the Thames tunnel. Sir M. I. Brunel, ii. (1843), 80.  
 — Notice of the Thames tunnel. Sir J. Rennie, v. 35.  
 — Tower subway, London. C. B. Vignoles, xxix. 288.

## TUNNELS, VENTILATION OF:—

- Atmospheric propulsion in long tunnels. J. F. Bateman and M. Révy, xliv. 43.  
 Impurities in the air of tunnels. G. J. Morrison, xliv. 23.  
 Resistance of air in motion through tunnels, with formulas. G. J. Morrison, xliv. 27; D. K. Clark, 90, 91, 93.  
 "Ventilation of tunnels." W. West, i. (1838), 32.  
 "— and working of railway tunnels." G. J. Morrison, xliv. 18. (1 plate.)  
 — Discussion: V. G. Bell, xliv. 50, 85; Dr. W. Pole, 54; J. Dixon, 55; D. P. Morrison, 55; H. B. Wilson, 56; Dr. Letheby, 56; T. Sopwith, Jun., 59; G. G. André, 63; W. H. Barlow, 65; Dr. C. W. Siemens, 67; J. A. Longridge, 68; J. Tomlinson, Jun., 71; T. W. Bunning, 76; C. D. Fox, 76; G. R. Stephenson, 79; J. B. Huntington, 79; W. Low, 82; E. A. Cowper, 83; D. K. Clark, 87.  
 — mechanical:—Furnaces: G. J. Morrison, xliv. 37. Struvé's ventilator, 37. Exhausters at St. Gothard tunnel, 37. Lemielle's ventilator, 38. Steam-jet, 38, 70. Centrifugal fan at Lime Street tunnel, Liverpool, 30, 39. Centrifugal fan for pneumatic despatch, 39. Guibal fan, 40.  
 — by brattices. T. Sopwith, Jun., xlv. 60; W. H. Barlow, 65; J. A. Longridge, 68; T. W. Bunning, 76; C. D. Fox, 77; D. K. Clark, 87.  
 — by shafts. J. B. Huntington, xlv. 79.  
 Channel tunnel (proposed). V. G. Bell, xlv. 50; D. P. Morrison, 56; T. Sopwith, Jun., 59; G. G. André, 63; C. D. Fox, 78; J. B. Huntington, 80; D. K. Clark, 87.  
 Geelong water supply. Ventilation of tunnels. E. Dobson, lvi. 121.  
 "Leeds and Selby railway, ventilating and lighting tunnels, particularly in reference to the one on the." J. Walker, (T.) i. 95.  
 Lime Street tunnel, Liverpool. G. J. Morrison, xlv. 30, 39.  
 Metropolitan railway. G. J. Morrison, xlv. 26, 39, 55, 58; J. Tomlinson, Jun., 71; J. B. Huntington, 79.  
 Mont Cenis tunnel during construction. T. Sopwith, Jun., xxiii. 260. By air exhausted from rock drills, 273.  
 — completed. T. Sopwith, Jun., xxxvi. 3, 8, 30; Major Beaumont, 17; E. A. Cowper, 21; H. Maudslay, 27;—G. J. Morrison, xlv. 32, 54.  
 "— Note on the ventilation of the." (S.) Dr. W. Pole, liii. 164.  
 St. Gothard tunnel during its construction, xlii. 250. Exhausters for ventilation, xlv. 37.  
 Standedge canal tunnel, natural ventilation of. H. Maekworth, xii. 298.  
 Sydenham tunnel during construction. A. E. Baldwin, xlix. 241.  
 Thames Tunnel, ventilation of the, during its construction. M. I. Brunel, i. (1837), 35; J. J. Hawkins, 43.

**TUNNELS FOR WATERWORKS, CANALS, IRRIGATION, OR SEWERAGE :—**

- Bristol waterworks, Harptree tunnel. J. Simpson, xiv. 220.  
 Brighton sewerage. J. G. Gamble, xliii. 197.  
 Chicago waterworks. Sir C. A. Hartley, xl. 213, 217.  
 Dublin waterworks. P. Neville, xxxviii. 22, 38-41.  
 France, tunnel-aqueducts for supply of Eastern Canal of. W. B. Dawson, lv. 216, 227.  
 Fucino (Lake), drainage of. A. Brisse and L. de Rotrou, li. 369.  
 Geelong water supply. E. Dobson, lvi. 121.  
 Glasgow waterworks. J. F. Bateman, xix. 279; xxiii. 318.  
 London. Sewers for the main drainage of London. J. W. Bazalgette, xxiv. 311.  
 Spain. Laguna del Rey for irrigation canal. J. D. Barry, xxvii. 520.  
 Whiston pumping station, St. Helen's. T. S. Stooke, xlix. 223.

**TURBINES.** See *Waterwheels*—turbines.

**TURF.** See *Peat* fuel.

**TURNTABLES.** See *Railways*—stations.

**VAPOURS :—**

- Application of the mechanical theory of heat to the study of volatile liquids; simple relations between the latent heat, atomic weight, and tension of vapours. R. Pictet, xlviii. 332.  
 Specific heats of vapours. E. Wiedemann, lii. 392.  
 Theory relating to the expansion of vapours without external work. G. A. Hirn, xlix. 373.

**VENTILATION :—**

- Artificial cooling of air, in considerable quantities, by contact with a cooled liquid. MM. Mignon and Rouart, xlv. 326.  
 Centrifugal fan, Inland Revenue Office. E. A. Cowper, lv. 155.  
 Downward ventilation, Conservatoire des Arts et Métiers. J. N. Shoolbred, lv. 162; Trocadéro Palace, 165.  
 Forced ventilation. E. A. Cowper, lv. 153; J. Imray, 158; J. Schönheyder, 166.  
 "Gas-burners, description of a mode of obtaining the perfect ventilation of. Faraday, ii. (1843) 184.  
 Moral difficulties of ventilation. J. Imray, lv. 157.  
 Pneumatic malting: (ventilation of malt by a current of cooled air). J. A. Barral, xli. 341.  
 Screw-fan, Glasgow University. W. W. Phipson, lv. 137, 171. Performance, 148; J. Schönheyder, 167.  
 Supply of air per head per hour. W. W. Phipson, lv. 126, 136; J. N. Shoolbred, 162. Amelioration of the atmosphere by electric illumination, 164; J. Schönheyder, 167.  
 Underground conduits for ventilation, objections to. Prof. J. Thomson, lv. 146; E. A. Cowper, 153.  
 Ventilating fans for soil-pipes. B. Verity, lv. 171.  
 Ventilating pumps for the bank of Ireland, by Mr. Oldham. E. A. Cowper, lv. 153.

Ventilation—*continued*.

Ventilation and air-cooling machine: (washing, purifying, and cooling air).

P. Delahaye, xliii. 428.

Ventilation. See *Coal mines*, ventilation of; *Tunnels*, ventilation of; *Slate quarries*.

## VIADUCTS, iron:—

Iron viaducts *versus* brick viaducts. W. Cudworth, xxii. 49, 51; G. P. Bidder, 52, 55; T. Bouch, 53; F. Wentworth Shields, 54, 55; W. Pole, 55; H. W. Barlow, 56.

Launching iron viaducts. See *Bridges*—erection of girders (p. 28).

Boyne. Account of the Boyne viaduct. J. Barton, xiv. 452.—W. H. Barlow, liv. 216.

Cambrian railway. "Description of viaducts across the estuaries on the the of the Cambrian railway." H. Conybeare, xxxii. 137, 152. (2 plates.)—

Discussion: see H. N. Maynard's Paper on New Ross Bridge (*Bridges*, wrought iron, lattice girder, p. 30).

Charing Cross railway viaducts. J. W. Barry, xxvii. 428.

Christchurch. Plate-girder viaduct over the Stour, at Christchurch. C. Reilly, xxix. 405.

Commentry-Gannat. The iron viaducts of the Commentry-Gannat line. W. Nördling, xl. 267.

Craigellachie. "The Craigellachie viaduct." W. H. Mills, xxv. 229.—Discussion: see W. Ridley's Paper on the Grand River viaduct (Mauritius, *below*.)

Crumlin viaduct. L. E. Fletcher, xiv. 504; P. W. Barlow, 506.

Dinting and Mottram. "On the reconstruction of the Dinting and the Mottram viaducts." W. Fairbairn, xxii. 327.—Discussion: J. F. Bateman, xxii. 334; W. Fairbairn, 334; J. Hawkshaw, 335.

Douro. Viaduct over the Douro at Oporto, li. 302.

Germany, railway viaducts in. R. Crawford, xxii. 13.

Gunjal viaduct, Great Indian Peninsula railway. A. C. Howden, xxvii. 224. Resistance of its piers to floods, 225.

Lausanne-Fribourg viaduct. G. H. Phipps, xxv. 252. Launching the girders, 252.

Leven and Kent. "Description of the iron viaducts erected across the tidal estuaries of the rivers Leven and Kent, in Morecambe bay, for the Ulverstone and Lancaster railway." J. Brunlees, xvii. 442. (1 plate.)—

Discussion: J. Hawkshaw, xvii. 448; J. Brunlees, 448.

Loch Ken. "Description of the Loch Ken viaduct, Portpatrick railway."

E. L. I. Blyth, xxi. 258. (1 plate.)—Discussion: G. W. Hemans, xxi. 265.

Luech. Viaduct over the valley of the Luech. M. Chabassu, xlv. 246.

Manchester. "Description of an iron viaduct erected at Manchester, on the joint stations of the London and North Western and the Manchester, Sheffield, and Lincolnshire railways." A. S. Jee, xi. 224.—Discussion: J. S. Russell, xi. 233, 236, 238; J. Fowler, 233; J. Simpson, 234, 240; R. Russell, 234; W. Pole, 236; G. P. Bidder, 236; Capt. Simmons, R.E., 237; I. K. Brunel, 237; J. Hawkshaw, 238; M. Stirling, 238; J. M. Rendel, 240.

Maquis viaduct, Santiago and Valparaiso railway. W. Lloyd, xxiii. 386.

Mauritius. "The Grand River viaduct, Mauritius railways." W. Ridley,

Viaducts, iron—*continued*.

- xxv. 237. (2 plates.)—Discussion on this and W. H. Mills's Paper on "The Craigellachie viaduct" (*ante*): J. A. Longridge, xxv. 248, 249, 260; G. W. Hemans, 248, 258; C. B. Vignoles, 249; J. M. Heppel, 249; R. Broad, 250; G. H. Phipps, 250, 259; W. Atkinson, 254, 258; J. H. Porter, 254; Sir C. Fox, 255; J. Hawkshaw, 256, 258; J. Cubitt, 258; T. E. Harrison, 258; J. Freeman, 260; G. Berkley, 260; J. Fowler, 261.
- Mhow-ke-Mullee. (Warren girder.) "On the new Mhow-ke-Mullee viaduct, Great Indian Peninsula railway." A. R. Terry, xxix. 373. (1 plate.)—Discussion: see E. W. Stoney's paper on Pennair bridge (p. 31).
- Salford. "Description of a cast-iron viaduct, or colonnade, constructed at Salford." J. Hawkshaw, xi. 241.
- São Paulo railway, iron viaduct. D. M. Fox, xxx. 38.
- Scinde railway. Warren-girder viaducts. J. Brunton, xxii. 471.
- Towah viaduct, Great Indian Peninsula railway. A. C. Howden, xxvii. 222. Resistance of its piers to floods, 222.
- Vallorbes. Lattice girder viaduct at Vallorbes, Jougne-Eclépens railway. J. Gaudard, lviii. 312.

## VIADUCTS, STONE OR BRICK :—

- Ariccia, viaduct of. Mr. Pentland, xiv. 233.
- Bahrn river, Scinde railway. J. Brunton, xxii. 470, 475.
- Chapple. "Description of the Chapple viaduct upon the Colchester and Stour valley extension of the Eastern Counties railway." P. Bruff, ix. 287.—Discussion: P. Bruff, ix. 292, 293, 294; I. K. Brunel, 293; C. B. Vignole, 293; W. Cubitt (President), 293; A. J. Robertson, 293; P. W. Barlow, 294.
- Hall Bottom viaduct. J. Hawkshaw, x. 298.
- Hownes Gill. "The Hownes Gill viaduct on the Stockton and Darlington railway." W. Oudworth, xxii. 44. (1 plate.)—Discussion: W. Oudworth, xxii. 52, 57; G. P. Bidder, 52, 55; T. Bouch, 52, 56; F. W. Shields, 54, 55; Prof. W. Pole, 55; W. H. Barlow, 56; J. Fowler, 56; J. S. Russell, 56.
- Lockwood. "Description of the Lockwood viaduct, on the Huddersfield and Sheffield railway." J. Hawkshaw, x. 296.—Discussion: J. Hawkshaw, x. 300, 301; S. Clegg, Jun., 300; J. Cubitt, 300; A. Giles, 301; C. H. Gregory, 301; N. Beardmore, 301; J. S. Russell, 301; J. Fowler, 302; J. Simpson, 302; C. May, 302.
- Notice of. L. E. Fletcher, xiv. 504.
- Medlock, near Manchester, viaduct over the. J. Hawkshaw, x. 299.
- Penistone viaduct. J. Hawkshaw, x. 299.
- Stone or brick viaducts *versus* timber viaducts. P. W. Barlow, xiv. 505; J. Simpson, 506.

## VIADUCTS, TIMBER :—

- Calder. "Description of the Calder viaduct, on the Whishaw and Coltness railway, with the specifications, estimates, and a series of experiments to ascertain the deflection of two of the strutted beams." Sir J. Macneill, ii. (1842), 189.
- Denby Dale viaduct. L. E. Fletcher, xiv. 505.
- Dinting Vale. "Description of the Dinting Vale viaduct on the line of the

**Viaducts, timber—continued.**

Sheffield and Manchester railway." A. S. Jee, v. 216; L. E. Fletcher, xiv. 505. (4 plates.)

Landore. "Description of the Landore viaduct on the line of the South Wales railway. L. E. Fletcher, xiv. 492.—Discussion; L. E. Fletcher, xiv. 504; P. W. Barlow, 505; J. Simpson, 506.

"Newcastle and North Shields, arched timber viaducts on the railway, erected by Messrs. John and Benjamin Green of Newcastle-on-Tyne; and the further application of the system to skew and other bridges, as well as to the roofs of railway stations and other large buildings." B. Green, i. (1841), 88; v. 219. (5 plates.)—Discussion: J. M. Rendel, i. (1841), 90; C. B. Vignoles, 90; J. Macneill, 91; J. Timperley, 91; G. Lowe, 91; Mr. Cooper, 91.

Nore. "Description of the viaduct erected over the river Nore, near Thomas-town, in the county of Kilkenny, to carry the Waterford and Kilkenny railway." Capt. W. S. Moorsom, xi. 426.

—durability of. Captain W. S. Moorsom, xxii. 325; R. Mallet, 326.

Ouse Burn viaduct. B. Green, v. 222;—L. E. Fletcher, xiv. 504; J. Simpson, 506.

Paddock viaduct, near Huddersfield. J. Hawkshaw, xi. 13.

Willington viaduct. B. Green, v. 225;—L. E. Fletcher, xiv. 504.

**VIBRATIONS of the soil at Greenwich Park, i. (1837) 31.****WAGONS:—**

Railway wagons. See *Railways*, rolling stock, &c.

Tipping wagons employed for Holyhead new harbour. H. Hayter, xlv. 105, 115, 127.

Wheeled vehicles carrying their rails. M. Grandvoinet, lviii. 376.

**WALL.** See *Railways*—cuttings and embankments—Retaining walls; *Docks*, Dock Walls; *Harbours*; *Piers*; *Quays*; *Sea defences*.

**WAREHOUSES:—**

Hull docks, warehouses and sheds. J. Timperley, (T.) i. 7, 21.

Marseilles, dock warehouses at. T. Hawthorn, xxiv. 150; A. Giles, 176; J. Jennings, 183.

Railway goods' warehouses. Hydraulic power *versus* shafting for working cranes. J. O. Butler, xlix. 51.

West India docks and Victoria docks, warehouses at. Col. Du Plat Taylor, xli. 121.

**WARMING AND VENTILATION OF BUILDINGS:—**

"Heating and ventilating apparatus of the Glasgow University." W. W. Phipson, lv. 124. (1 plate.)—Discussion: Prof. J. Thomson, lv. 144; Dr. A. Thomson, 147, 151; J. Constantine, 149; E. A. Cowper, 151; J. Imray, 156; J. I. Thornycroft, 160; J. N. Shoolbred, 161; J. Schönheyder, 166; E. G. Rivers, 168; W. W. Phipson, 169; B. Verity, 171.

Heating apparatus, Royal Gardens, Kew. E. G. Rivers, lv. 168.

—Free Trade Hall, Manchester. J. Constantine, lv. 149.

—for mills. G. W. Sutcliffe, lviii. 254.

Heating surface required for warming. W. W. Phipson, lv. 133.

Warming and ventilation of buildings—*continued*.

Joyce's stove, i. (1838), 11.

Principles of warming and ventilation. Sir J. Rennie, v. 109;—W. W. Phipson, iv. 125; Prof. J. Thomson, 144, 146; Dr. A. Thomson, 147; E. A. Cowper, 154; J. Imray, 158; J. I. Thornycroft, 160; J. N. Shoolbred, 161.

"Warming and ventilating." J. Horne, i. (1837), 42.—Discussion: G. H. Palmer, i. (1837), 43; J. J. Hawkins, 43; E. Cottam, 43; J. Oldham, 43, 44.

"—public buildings and apartments, with an account of the methods which have been most successfully employed for ensuring a healthy state of the atmosphere." C. Hood, i. (1839), 72.

— and ventilation of public buildings. E. Trelat, liv. 379.

— and ventilation of a flax mill at Leeds. J. Combe, ii. (1842), 142.

— and ventilation of a weaving shed. J. Smith (Deanston), ii. (1842), 144.

— buildings by steam. "Experiments and observations on the emission of heat by hot-water pipes." (S.) W. Anderson, xlviii. 257.

WATCHES. See *Clocks* and *chronometers*.

## WATER—ANALYSES, IMPURITIES, AND PURIFICATION:—

Bog water, composition of, County Dublin. E. Byrne, xxvi. 545.

Bouquet's mode of determining the turbidity of water, liii. 318.

Buenos Ayres, analysis of water: water supply for—Rivers Uruguay, Palmas, Lujan, Tigre. G. Higgin, lvii. 272-274.

Chalk, solution of, eroded by pumping. R. Rawlinson, xix. 51.

— Analyses of chalk water. D. Campbell, xlvii. 159.

— Chalk water at Aix-la-Chapelle: composition. J. Stübgen, li. 381.

Clark's process for softening and purifying water. W. West, v. 190; F. Braithwaite, 205; G. Lowe, 215;—Prof. D. T. Ansted, xiv. 59.

— Chalk water, softened by Dr. Clark's process. E. Chadwick, xlvii. 141. Plumstead waterworks: S. C. Homersham, 148; F. J. Bramwell, 155; W. Morris, 165. Limits of its efficiency: Prof. Wanklyn, 148; F. J. Bramwell, 155. Clark's process improved by J. H. Porter, well at Bantstead Asylum: F. J. Bramwell, 155.

Common spring or river waters, composition of. W. West, v. 184.

Deterioration of water by exposure:—at Berlin; C. B. Vignoles, xxvii. 37. At Warrington, &c.: J. F. Bateman, 38.

Dresden waterworks. Well water and river water. H. Salbach, xxxix. 384.

Hard water *versus* soft water. R. Rawlinson, C.B., xxv. 495; W. Atkinson, 499; J. F. Bateman, 500, 506; S. C. Homersham, 503, 506; C. B. Lane, 505; G. R. Burnell, 507;—T. Hawksley, xxxi. 69.

Hardness of waters and their tendency to form scale. Prof. A. Wagner, liii. 316.

Infiltration of tidal waters into deep wells. Rev. J. C. Clutterbuck, xiv. 510; S. C. Homersham, 515.

Lead, action of, on soft water. W. Atkinson, xxv. 500; J. F. Bateman, 500; S. C. Homersham, 503.

Liverpool, analyses of water. T. Duncan, xii. 502.

London basin, analyses of water of. W. West, v. 192; F. Braithwaite, 203.

— Influx of tidal waters into walls in London, ix. 154.

Water—analyses, impurities, and purification—*continued.*

London. Minorities; Mint; Trafalgar Square. F. Braithwaite, xiv. 509, 520; S. C. Homersham, 516.

— Analysis of water from well at Holloway. W. Maugham, xiv. 181.

— Composition of chalk water affected by overlying clay. Prof. Graham, viii. 174.

— Analyses of water from wells in and around London. F. Braithwaite, ix. 176.

Natural and artificial impurities of water. Prof. D. T. Ansted, xxvii. 24; E. Chadwick, 32; L. Olrick, 43;—T. Hawksley, xxxiii. 345.

Natural purification of water. Prof. D. T. Ansted, xxvii. 25; xlv. 95;—Prof. J. Prestwich, xlv. 100.

Purification of water, Sandhurst, Victoria. Separation of clayey matter by lime. J. Brady, lvi. 139; S. C. Homersham, 166;—G. Gordon, lvii. 195.

— for industrial purposes. E. Asselin, lvii. 423.

Ritterbandt's process for purifying water. J. V. Gooch, v. 195, 210; Dr. Ritterbandt, 198, 206, 210, 211; J. T. Cooper, 202; Prof. Brande, 202; F. Braithwaite, 204; R. Stephenson, 206, 209; A. Smee, 207, 209; J. S. Johnson, 207; J. Hawkshaw, 209; G. Lowe, 215.

Salt water, analyses of. J. B. Huntington, xii. 507.

— Sea-salt in well water: infiltration of water from the Thames. Rev. J. C. Clutterbuck, xix. 32. At Harwich: P. Bruff, 39. Trafalgar Square: F. Braithwaite, 44; S. C. Homersham, 45.

— Infiltration of, into springs. F. Braithwaite, ix. 176. At Ramsgate: F. Braithwaite, xiv. 509; Rev. J. C. Clutterbuck, 510; J. Simpson, 512.

— in chalk formation, Denmark. J. Murray, xx. 368.

— Absorption of the salt of sea-water by potters'-clay pipes. M. Lavezari, l. 198.

Scinde. Analyses of water: J. Brunton, xxii. 459, 460. Kurrachee: J. Brunton, xxii. 460. Nágpúr, A. R. Binnie, xxxix. 15.

Sewage. Percolation of fungoid impurities in wells at Croydon. B. Latham, xlv. 72.

— Percolation of sewage into wells. Prof. J. Prestwich, xlv. 99;—T. S. Stooke, xlix. 228.

— Pollution of water by manure: G. J. Symons, xlv. 10; Dr. J. H. Gilbert, 54, 62. By mining operations, 11; by peat, 12; by animalcules, 11, 12.

— Water supply affected by house drains, Liverpool. G. F. Deacon, xlii. 132. Sydney. Analysis of water:—Sydney, New South Wales, by Prof. Smith, lvi. 167; Geelong, Victoria: G. Gordon, lvii. 195, Sandhurst, Victoria: J. Brady, 197.

Temperature, influence of, of water on its purity. S. C. Homersham, lvi. 165.

Tests for impurities in water. A. Smee, xxvii. 23; L. Olrick, 44; M. Heisch, 45.

Thuringian railway. Analysis of water. xli. 293.

Tring, Watford, and Camden station, analyses of water from wells at. R. B. Dockray, viii. 172; Dean of Westminster (Dr. Buckland), 173; F. Braithwaite, 178; xiv. 507.

Vарты, Wicklow, water of river, xxxviii. 32.

Yarra and Plenty, and Yan-Yean reservoir, Melbourne, analyses of water of rivers. M. B. Jackson, xviii. 380, 382.

See *Filtration*; *Rivers*, pollution of.

**WATER, DISCHARGE OF, OVER WEIRS :—**

Historical notice of experiments on flow and discharge of water. T. E. Blackwell, x. 332.

Formulae for flow of water over a calingulah or irrigation weir in India. A Wilson, xxvii. 458.

— Formula for flow of water over weirs, Paisley waterworks. A. Leslie, xxxi. 36.

— Francis's formula for flow and discharge of water. R. Manning, xxv. 459, 467, 478.

— Ordinary and special formulæ for the discharge of water over weirs. T. E. Blackwell, x. 336. Co-efficients, 348.

— Remarks on formulæ for discharge over weirs. R. Manning, xxv. 467, 478; J. F. Bateman, 472.

"Results of a series of experiments on the discharge of water by overfalls or weirs." T. E. Blackwell, x. 331.—Discussion on this Paper and J. Leslie's Paper on gauging streams (p. 357): T. E. Blackwell, 350; J. Simpson, 350; J. S. Russell, 350; T. Hawksley, 351; C. E. Cawley, 352; S. Ballard, 352.

— on the flow of water over weirs. S. Ballard, x. 352.

**WATER, DISCHARGE OF, THROUGH APERTURES OR ORIFICES :—**

"Account of some experiments made in 1823 and 1824, for determining the quantity of water flowing through different shaped orifices." B. Donkin, (T.) i. 215.

Description and results of hydraulic experiments with large apertures. T. G. Ellis, xlv. 287.

Discharge from nozzles. "Experiments on the heights, &c., of jets from the hydrants of the Kingston waterworks, Jamaica." (S.) F. Target, liv. 276.

Flow and discharge of water through a large aperture at the cofferdam at Grimsby dock: C. Neate, ix. 7. Application of formula, by N. Beardmore, 8.

— of water through sluice orifices: gates of Leith docks: J. Leslie, xiv. 284. Lock-gates of Monkland canal, 284; T. Hawksley, 298.

Graphic determination of the hydraulic head, velocity of discharge, and time of emptying of fluids from vessels of various forms. Dr. R. Pröll, xxxix. 363.

**WATER, EXPANSION OF :—**"An account of some experiments on the expansion of water by heat." T. Tredgold, (T.) i. 141.

**WATER, FALLS OF, on the value of.** A. Cantalupi, lii. 380.

**WATER, FILTRATION OF.** See *Filtration*.

**WATER, FLOW OF, IN RIVERS, CANALS, AND STREAMS :—**

Bottom velocity and the velocity-scale of rivers. J. Schlichting, xlix. 324.

Cause of the maximum velocity of water flowing in open channels being below the surface. J. B. Francis, lv. 357.

Currents in navigable rivers. A. Rullier, xlvi. 290.

Discharge of canals. Capt. Allan Cunningham, R.E., li. 357.

Distribution of velocities in a current. M. Bazin, xliii. 350.

"Flow of water through level canals." (S.) J. A. Longridge, liii. 216.

— in the Ganges canal. T. Login, xxvii. 509.

Flow of water in canals. Hydraulic experiments at Roorkee, 1875, 1876. Capt. A. Cunningham, R.E., xlv. 263; xlviii. 322; li. 357.



**Water, flow of, in rivers, canals, and streams—continued.**

Formula, Du Buat's, and Eytelwein's formula, for the flow of water in rivers, compared with experiment. G. B. Bruce, x. 232.

— by Mr. W. Pole, xiv. 203, 234. Prony's formula, employed by M. Mont Richer, xiv. 233.

Gauging discharge of rivers. N. Beardmore, xxvii. 235. Tumbling Bay on the river Lea, 236.

— New process for gauging rivers (formula for discharge). P. Boileau, lvii. 351.

"Mode of computation whereby flood water may be excluded from a set of gaugings taken at regular intervals, and therefore including floods." J. Leslie, x. 327.—Discussion: see T. E. Blackwell's Paper on discharge over weirs (p. 356).

Observations on the movement of water in streams. (Comparison of various formulæ with observations.) P. Graeve, lvii. 352.

Position which a movable plane takes in flowing water. G. Hagen, lvi. 328.

Recent investigations on the flow of water in streams and canals. K. R. Bornemann, xlix. 318.

Resistance of the surface over which the water flows. T. Hawksley, xiv. 305, 306; W. Haywood, 310; J. R. McClean, 310; G. P. Bidder, 311.

Self-acting shutter (or weir) for canals. B. Nicorini, xli. 253.

Velocity of currents. Admiral Sir E. Belcher, xxi. 340; J. Murray, 336, 341. See *Floods; Rivers*.

**WATER, FLOW OF, THROUGH CONDUITS:—**

Flow of water in sewers. R. Rawlinson, xiv. 304; J. W. Bazalgette, 308.

Form of channel of constant mean velocity. F. E. Rose, xliii. 348.

Formula for flow of water in conduits. J. Leslie, xiv. 283.

"Note on a graphic mode of ascertaining the flow of a mill stream." (S.) W. Shelford, lviii. 337. (1 plate.)

Proper amount of waterway through culverts. T. M. Cleemann, lviii. 375.

Dresden. Subterranean water-levels at Dresden:—Subterranean flow of water in Dresden, observations on. Hr. Manck, xxxix. 369.

Dundee waterworks: J. Leslie, xiv. 283; T. Hawksley, 298.

Edinburgh waterworks: J. Leslie, xiv. 283.

India, irrigation conduits in:—Rajbaha velocities and discharges of water.

Major A. M. Brandreth, R.E., xl. 299.

See *Aqueducts*.

**WATER, FLOW OF, THROUGH PIPES:—**

Experiment at Alnwick: G. P. Bidder, xiii. 115, 116. At Versailles: T. Hawksley, 117.

Experimental verification of various formulas for flow through pipes. J. Murray, xii. 55. Table of experimental results: J. Simpson, xiv. 316.

"Experiments on the flow of water through small pipes." W. A. Provis, (T.) ii. 201.

"— through pipes of different lengths." W. A. Provis, i. (1838) 48.

— of the General Board of Health. T. Hawksley, xi. 417;—J. Murray, xii. 53; T. Hawksley, 57;—T. Hawksley, xiv. 290, 291, 297, 309, 314; G. P. Bidder, 311, 312; R. Rawlinson, 313; J. Simpson, 317.

**Water, flow of, through pipes—continued.**

Flow of water in pipes. P. Boileau, xlv. 257.

— through lead pipes:—Table. T. Duncan, xii. 501;—J. Leslie, xiv. 273; G. P. Bidder, 288; T. Hawksley, 295; N. Beardmore, 299.

— in pipes under pressure (formulae and experimental results). C. G. Darrach, lv. 381.

Formulae. Du Buat's formula. J. Murray, xii. 56;—T. Hawksley, xiv. 296, 305.

— Eytelwein's formula, xii. 57; xiv. 317. Modified by Dr. Thomas Young. J. Leslie, xiv. 275; xlvii. 128.

— Hawksley's formulae, xi. 418; xiv. 307; xxxiii. 55.

— Prony's formula, xii. 57.

— Poncelet's formula, xii. 57.

— Smeaton's rules and data. J. W. Bazalgette, xiv. 307.

— Weisbach's formula, xiv. 310. Table of flow of water through pipes, calculated by Weisbach's formula, by J. Thomson and G. Fuller, xiv. 310; J. R. McClean, 310.

Frictional resistance of the surface of pipes: experimental results. T. Hawksley, xvi. 356, 360; xxiii. 353;—Prof. W. J. M. Rankine, xxiii. 368;—R. H. Tweddell, xlix. 42. Influence of the condition of the surface: J. Simpson, xiv. 317. M. Darcy's experiments: G. H. Phipps, xxiii. 330, 371; T. Hawksley, 353; G. P. Bidder, 359.

Influence of enlargements in pipes on the discharge through them. A. Fliegner, xlii. 284.

— of temperature on the velocity of discharge of water from pipes. O. E. Meyer, xl. 298.

Large pipes: Edinburgh waterworks. J. Murray, xii. 55;—J. Leslie, xiv. 282; T. Hawksley, 298; G. H. Phipps, 301.

Loss of head due to local enlargements. T. Wrightson, xl. 43.

Observations on the flow of water through 12-inch and 18-inch mains at Liverpool. T. Duncan, xii. 499.

“— on the flow of water through pipes, conduits, and orifices.” J. Leslie, xiv. 273.—Discussion: G. P. Bidder, xiv. 288, 311, 314; W. Haywood, 289, 310; T. Hawksley, 290, 291, 304, 306, 309, 314; J. W. Bazalgette, 290, 307; R. Stephenson, 290; N. Beardmore, 299, 308; G. H. Phipps, 301, 304, 306; R. Rawlinson, 304, 313, 314; J. R. McClean, 310; J. S. Russell, 314; J. Simpson, 316.

Properties common to canals and pipes. P. Boileau, xlix. 317.

— to pipes, canals, and uniform rivers. P. Boileau, li. 359.

Retarding effect of the side of pipes on the flow of liquids. P. Boileau, lvi. 327.

Test for quantity of water passing through mains. S. C. Homersham, xlii. 177.

**WATER, HEATING, BY STEAM.** Hon. J. Wethered, xix. 486;—W. Anderson, xxxv. 49, 54, 55; F. J. Bramwell, 94.

**WATER, LIFTING:—**

Comparison of machines for low lifts. W. Airy, xxxii. 6, 60.

Giffard's injector for lifting water. J. England, xxiv. 216.

Lifting water by means of a jet of steam: historical notice. J. England, xxiv. 198; Z. Colburn, 243.

**Water lifting—continued.**

- Lifting water in India, by the môt, the picottah pump, and basket scoops;  
 A. Wilson, xxvii. 464. Comparative performance, 466.  
 — by a balance beam. In India: A. Wilson, xxxv. 148. In Ceylon: H. Byrne, lvii. 232.  
 — by scoops in Ceylon. H. Byrne, lvii. 231.  
 — "Results of the application of horse-power to raising water from the working shafts at Saltwood tunnel, on the South Eastern railway in 1842."  
 F. W. Simms, ii. (1843), 112.—Discussion: see *Horses*, power of (p. 116).  
 See *Pumps*; *Pumps*, centrifugal; *Pumps*, pumping engines; *Steam engines*, Cornish.

**WATER, MEASURES OF, SUPPLIED FOR IRRIGATION, &c.:—**

- Carrol's module, Ganges Canal. G. Higgin, xxvii. 503.  
 Elche module. System of dividing water in the river adopted by the Moors at Elche, Spain. G. Higgin, xxvii. 501.  
 Henares and the Esla canal, modules adopted on the. G. Higgin, xxvii. 503.  
 Proposed movable weir, 504.  
 — One horse-power of water on the Henares canal. G. Higgin, xxvii. 497.  
 'Inch' module of water for hydraulic mining, California. A. J. Bowie, Jun., ii. 337.  
 Lorca. Method of distribution of water in Lorca, Spain. G. Higgin, xxvii. 501.  
 Marseilles canal, measurement of water on the. G. Higgin, xxvii. 502.  
 Milanese module, in Lombardy: "oncia d'acqua magistrale." B. Albano, ii. (1843), 200;—G. Higgin, xxvii. 502.  
 "Model and drawing of a lock-meter, used in Lombardy for measuring water for irrigation." B. Albano, ii. (1843), 200.  
 Ribera's module, Spain. G. Higgin, xxvii. 503.

**WATER IN MOTION, FORCE OF:—**

- Force of impact of jets of water under pressure, experiments on. F. J. Bramwell, xxiv. 228, 230; J. Hawkshaw, 239; G. P. Bidder, 242.  
 Formula for the pressure of running streams. G. P. Bidder, xxiv. 242.  
 Resistance of the piers of the Towah viaduct, Nerbuddah valley. A. C. Howden, xxvii. 222.  
 See *Waves*.

**WATER IN MOTION, TRANSPORTING POWER OF:—**

- Carriage of stones in deep water. G. H. Kinahan, lviii. 284.  
 Law of the drifting power of water in motion. Sir G. B. Airy, xxxiii. 227;  
 C. B. Vignoles, 230; J. S. Russell, 236.  
 Mud carried by the Nile, the Elbe, the Rhine. G. B. W. Jackson, vii. 221.  
 Non-erosive action of moving water in irrigation channels, Ceylon. H. Byrne, lvii. 237.  
 Power of flowing water to move solid bodies. J. T. Harrison, viii. 311.  
 — of running water to hold matters in suspension. J. P. Frizell, lv. 356.  
 Principle of the action of water in suspending solid matter. T. Login, xxvii. 473. Transporting power: xxviii. 84;—A. Cialdi, xlvii. 365.  
 Scouring power of water. I. K. Brunel, xv. 449.  
 Transporting power of water in the river Clyde. W. Bald, v. 324, 327.  
 — of water. J. W. Bazalgette, xxiv. 289.

**WATER, OXYGEN DISSOLVED BY.** R. Adie, iv. 325.

**WATER, PROPAGATION OF CONCUSSIVE ACTION THROUGH.** R. Mallet, xviii. 114.

**WATER, RESISTANCE TO BODIES MOVING THROUGH.** See *Ships* and steam vessels—resistance.

**WATER, VELOCITY OF UNDULATION OF.** Dr. Schafhaeutl, i. (1841), 104.

**WATER (Sea).** Action of sea-water on copper sheathing. Dr. Percy, xlviii. 74.  
See *Ships* and steam vessels, sheathing.

— on timber. J. Paton, ix. 35. See *Timber*.

— as a preventive of corrosion. R. Adie, iv. 323, 327.

— its effect upon cast-iron. See *Iron* (cast).

**WATER-MAINS; water pipes.** See *Pipes*, water-mains.

**WATER-METERS—general references:—**

Historical notice. J. Simpson, xvi. 59; T. Hawksley, 60.

“Description of a water-meter.” P. Carmichael, iii. 68.

High-pressure *versus* low-pressure meters. T. Hawksley, xvi. 60, 63.

Legislation on water supply by meter, xxxi. 58, 59.

List of patents for water-meters, 1824–1834. D. Chadwick, xiii. 423.

“Recent improvements in water-meters.” T. T. Jopling, xvi. 46.—Discussion: T. T. Jopling, xiv. 51, 59; C. W. Siemens, 51, 63; T. Kennedy, 55; C. Greaves, 56; J. Simpson, 59; T. Hawksley, 60, 64; R. Rawlinson, 63; J. Locke, 64; D. Chadwick, 64.

“Water-meters.” D. Chadwick, xiii. 421; xvi. 64.—Discussion: I. K. Brunel, xiii. 430; C. W. Siemens, 431; J. F. Bateman, 432; W. Brockedon, 432; J. T. Cooper, 434; J. S. Russell, 434; J. Webster, 435; Mr. Lilley, 435; D. Chadwick, 436.

**WATER-METERS—HIGH-PRESSURE:—**

Chadwick's rotary water-meter. D. Chadwick, xvi. 64.

Donkin and Co.'s disc water-meter. D. Chadwick, xiii. 422.

Ericsson's paddle-wheel meter. D. Chadwick, xiii. 426.

Hanson and Chadwick's roller water-meter. D. Chadwick, xiii. 427, 436;  
I. K. Brunel, 430; J. F. Bateman, 432; W. Brockedon, 432.

Mitchell's screw meter. J. Simpson, xvi. 59; T. Hawksley, 62.

Parkinson's diaphragm water-meter. D. Chadwick, xiii. 425;—T. Hawksley, xvi. 62.

— wheel-meter. Mr. Lilley, xiii. 435.

Puff-bag meter. T. Hawksley, xvi. 62.

Siemens' screw meter. D. Chadwick, xiii. 426; C. W. Siemens, 431; xvi. 51, 63;—C. Greaves, xvi. 57, 58; J. Simpson, 59, 60; T. Hawksley, 62, 64; R. Rawlinson, 63.

— and Adamson's turbine meter. D. Chadwick, xiii. 426; C. W. Siemens, 431;—T. Hawksley, xxxi. 67;—J. M. Gale, xlii. 206; H. Salbach, 289;—C. Muchall, xli. 311.

— and Halske's water-meters. Dr. Löwenherz, liii. 324.

Taylor's drum meter. D. Chadwick, xiii. 425.

Taylor's wheel meter. H. Salbach, xlii. 289;—C. Muchall, xli. 311.

**WATER-METERS—LOW-PRESSURE:—**

Bramah's eccentric drum meter. J. Simpson, xvi. 59.

**Water-meters—low-pressure—continued.**

- Crossley's meter. T. Hawksley, xxxi. 68.  
 Ericsson's piston meter. D. Chadwick, xlii. 427.  
 Experiments with water-meters at Wiesbaden. C. Muchall, xlv. 311.  
 Frost's piston meter. H. Salbach, xlii. 289; C. Muchall, xlv. 311.  
 Jopling's piston water-meter. T. T. Jopling, xvi. 46, 50, 51, 59; C. Greaves, 58; J. Simpson, 59.  
 Kennedy's piston water-meter. I. K. Brunel, xlii. 430;—T. Kennedy, xvi. 55; C. Greaves, 57, 58; J. Simpson, 59; T. Hawksley, 61;—H. Salbach, xlii. 289, 290;—C. Muchall, xlv. 311.  
 Piston-meters. C. W. Siemens, xvi. 53; C. Greaves, 56; T. Hawksley, 60, 61.  
 Stirling's bucket meter. J. Simpson, xvi. 59.  
 Trials with meters for feed-water. C. H. Schneider, xliii. 380.  
 Waste-water meter. G. F. Deacon, xlii. 143, 145, 159, 169, 199, 206, 209; F. J. Bramwell, 186; J. N. Shoolbred, 207.  
 Water-meters in Berlin: condition of a good meter. Dr. Loewenherz, liii. 322.  
 Water-meters of recent construction. H. Salbach, xlii. 288.

**WATER-PRESSURE** as a motive force. See *Hydraulic machinery*—Water pressure engines; *Water-wheels*.

**WATER-PRESSURE engines.** See *Hydraulic machinery*—Water-pressure engines.

**WATER RIGHTS**, legislation on. T. Hawksley, xx. 250, 253; J. Evans, 251; W. Drummond, 252; J. B. Denton, 253; J. H. Lloyd, 254; G. P. Bidder, 255.  
 See *Boring*; *Irrigation*; *Pipes*; *Pumps*, pumping-engines; *Rainfall*; *Wells*.

**WATER SUPPLY, SOURCES OF;—**

- Chalk formation of England. Extent of. Prof. D. T. Ansted, ix. 380; Dr. Mantell, 371.  
 — "Chalk-water system." J. Lucas, xlvii. 70. (3 plates).—Discussion: J. Lucas, xlvii. 113, 156; Rev. J. C. Clutterbuck, 114; Prof. D. T. Ansted, 116; S. C. Homersham, 118, 148; J. Evans, 122; W. Shelford, 125; B. Latham, 126, 135; Dr. C. W. Siemens, 134; E. Easton, 135; E. Chadwick, 140; J. A. Longridge, 142; J. Grant, 148; Prof. Wanklyn, 148; E. A. Cowper, 149; G. J. Symons, 149; J. W. Grover, 152; F. J. Bramwell, 153; D. Campbell, 158; Sir W. Farquhar, 160; R. Field, 160; C. Greaves, 162; Rev. D. S. Halkett, 165; Earl of Lovelace, 165; W. Morris, 165; W. Topley, 166.  
 — Resources of the chalk system for water supply. S. C. Homersham, xlvii. 118, 119, 120; J. Evans, 122, 124; W. Shelford, 125; B. Latham, 132; E. Easton, 137, 138; J. A. Longridge, 142, 145; F. J. Bramwell, 154; Earl of Lovelace, 165.  
 — Waterworks and wells supplied from the chalk. S. C. Homersham, xlvii. 118, 119, 120; E. Easton, 140.  
 — Water in the chalk, Colchester. P. Bruff, xix. 38.  
 — Supply of water from the chalk for Kent waterworks. S. C. Homersham, xix. 36; F. Braithwaite, 43.  
 — Chalk formation south of the Thames. J. Gibbs, xx. 212.

Water supply, sources of—*continued.*

Chalk. "Chalk water supply of Yorkshire." (S.) J. B. Mortimer, lv. 252. (1 plate.)

Distribution of water from mountain sheds between mills and towns. T. Hawksley, xviii. 339.

Discussion on water rights, xx. 250.

Dover: water supply. J. Hanvey, 192.

Greensands, supply of water from the, by J. Prestwich, xiv. 62.

Kent (North), supply of water from the district: P. W. Barlow, xiv. 53.

Report of Prof. D. T. Ansted, 55, 57.

London: water supply. R. Rawlinson, xxv. 494;—J. B. Redman, xlix. 73.

Effect of abstraction of water in lowering the level of the Thames: Sir J. Cooke, xlii. 181.

—"On some peculiar features of the water-bearing strata of the London basin." P. W. Barlow, xiv. 42.—Discussion: P. W. Barlow, xiv. 66, 70, 80, 88, 93; F. Braithwaite, 66, 73; Rev. J. C. Clutterbuck, 66; J. Simpson, 68, 93; S. Clegg, Jun., 68, 84; J. Dickinson, 71, 80, 84, 89; S. C. Homersham, 72, 81; P. H. Hakewill, 74; J. Hawkshaw, 75, 87; J. Prestwich, Jun., 77, 89; N. Beardmore, 86; J. Evans, 86; R. Rawlinson, 92.

—Chalk of the London basin: S. C. Homersham, xlv. 70. Natural filtration, 71.

—Section of strata near Trafalgar Square, London: C. E. Amos, xix. 22, 23. Colchester: P. Bruff, 38. Harwich, 39, 41. Combs, near Stowmarket, 41, 42.

—Stratification and extent: P. W. Barlow, xiv. 42, 61, 70. Variable character of the chalk: J. Dickinson, 71; S. C. Homersham, 72, 84; P. H. Hakewill, 75; J. Prestwich, Jun., 77; J. Simpson, 94.

—water in the chalk. R. W. Mylne, i. (1839), 62.

—Discussion on water supply and land drainage, xx. 210.

—Watershed. Rev. J. C. Clutterbuck, xxvii. 229.

Munich. Second report on the water supply, sewerage, and removal of refuse of Munich, 1876-77, li. 382.

New red sandstone, East Yorkshire. Prof. E. Hull, xlix. 164.

Paris: water supply. C. B. Vignoles, xxv. 494; R. Rawlinson, 494.

Philosophy of water-bearing strata. J. Hawkshaw, xix. 48; R. Rawlinson, 49.

Rhine: watershed. G. B. W. Jackson, vii. 213.

Sources of water supply, xxvii. 25.

—G. J. Symons, xlv. 10. Deep-well water, 11, 12. Rain-water, 12.

Sydney, New South Wales. W. Clark, lvi. 153; S. C. Homersham, 166, 681;

E. O. Moriarty, 168; analysis of the water by Prof. Smith, 167.

See *Chalk formation*, water in; *Rainfall*; *Wells*.

WATER SUPPLY—WATER-LEVELS IN LONDON BASIN:—

Angle of friction of the water in the chalk. J. Evans, xlvii. 124; W. Shelford, 125; B. Latham, 127; E. Easton, 135; J. A. Longridge, 144; J. W. Grover, 152.

—of repose of water-level in chalk. J. Evans, xx. 227.

Chalk water level under London. F. Braithwaite, ix. 165.

—inclination of: J. Dickinson, ix. 370. Surface of permanent wetness: Prof. D. T. Ansted, ix. 374.

Water supply—water-levels in London basin—*continued*.

Chalk water level, inclination of. P. W. Barlow, xiv. 63; Rev. J. C. Clutterbuck, 67, 68, 511; S. Clegg, Jun., 68; S. C. Homersham, 72, 81, 83; F. Braithwaite, 73, 512; J. Prestwich, Jun., 79; J. Dickinson, 80, 84; J. Evans, 87; J. Simpson.

— Water-level in the chalk. S. C. Homersham, xxii. 362; Rev. J. C. Clutterbuck, 369.

— Chalk wells in Kent: depth of water, 1836-1876. J. Lucas, xlvii. 87-112.

Determination of direction of flow of water by temperature. B. Latham, xlvii. 131.

Exhaustion of the supply. Rev. J. C. Clutterbuck, xxv. 497.

Fluctuations of the water-line following the rainfall, 75, 156; tables, 87-112; Rev. J. C. Clutterbuck, 115; S. C. Homersham, 118, 122.

Lowering of water-level and exhaustion of the supply. F. Braithwaite, v. 478; viii. 178, 185;—Mr. Paten, viii. 185; R. Davison, 185.

— and exhaustion of the water-supply. Rev. J. C. Clutterbuck, xix. 30, 37, 45; F. Braithwaite, 34, 37; S. C. Homersham, 45; C. May, 48; R. Rawlinson, 50.

Nature of the 'water-line,' or water-level in the chalk: J. Lucas, xlvii. 74.

"Observations on the periodical drainage and replenishment of the subterraneous reservoir in the chalk basin of London." Rev. J. C. Clutterbuck, ii. (1842) 155.—Discussion: Dr. Buckland, ii. (1842), 158, 161, 162; J. Dickinson, 161; Rev. J. C. Clutterbuck, 161, 163; F. Braithwaite, 162, 164; H. R. Palmer, 163.

"— on the periodical drainage and replenishment of the subterraneous reservoir in the chalk basin of London." Rev. J. C. Clutterbuck, ii. (1843), 156. (1 plate.)

"Periodical alternations, and progressive permanent depression of the chalk-water level under London." Rev. J. C. Clutterbuck, ix. 151, (2 plates.)—Discussion: Rev. J. C. Clutterbuck, ix. 153, 163, 164, 170, 180; J. Dickinson, 156, 162, 173; Dr. Lyon Playfair, 159; Dr. M. Faraday, 160; S. C. Homersham, 161, 164, 172; F. Braithwaite, 165, 176; J. L. Taberner, 169, 175; J. Horn, 176; F. O. Ward, 178; J. Simpson, 178, 189; T. Clark, 179.

Variation of water-level in the chalk. J. Evans, xx. 227.

Variations of water-level of London basin caused by wells. R. W. Mylne, (T.) iii. 231.

— of water-levels in the chalk. Rev. J. C. Clutterbuck, ii. (1842), 156, 157, 158, 161; Dr. Buckland, 159, 161; J. Dickinson, 161; F. Braithwaite, 162; H. R. Palmer, 163.

Water-level. F. Braithwaite, ii. (1843), 58; Rev. J. C. Clutterbuck, 156. Oscillations of the water-level, 157.

— at Brighton. Rev. J. C. Clutterbuck, xix. 47.

— at Combes, near Stowmarket. P. Bruff, xix. 41.

— at Ipswich. C. May, xix. 48.

— south of the Thames. S. C. Homersham, xix. 35.

— at Trafalgar Square waterworks. C. E. Amos, xix. 25, 80; F. Braithwaite, 43; S. C. Homersham, 45; Rev. J. C. Clutterbuck, 47.

— at Worthing. R. Rawlinson, xix. 50.

**WATER SUPPLY—FITTINGS, WASTE :—**

Consumption and waste of water. J. H. Harlow, l. 230.

Domestic fittings. T. Hawksley, xxxi. 57; xxxiii. 344.

— pipes and fittings; Rochdale corporation waterworks, rules and regulation of, xxxi. 62.

Economy by using water-meters. C. Groaves, xvi. 56; T. Hawksley, 63; R. Rawlinson, 63.

Lambert's flexible diaphragm water-valves, vii. 416.

Waste of water. H. Conybeare, xviii. 390; R. Rawlinson, 395; C. W. Siemens, 397; T. Hawksley, 399.

— by leaky fittings. R. Rawlinson, C.B., xxv. 495.

Bombay waterworks. Self-closing public conduits. H. Conybeare, xvii. 564.

France, large towns in: gauge-cock system, and system by estimation. F. Jenkin, xxv. 505.

Liverpool. Fittings:—xlii. 147, 161, 164, 198, 209. Manchester, 175, 197. Sir J. Coode, 180, London, 181, 195, Dover, 192, Norwich, 194, Glasgow, 194, 204.

— Sources and prevention of waste. G. F. Deacon, xlii. 131, 135, 140, 143 to 159, 197. Manchester: T. H. G. Berrey, xlii. 169; J. F. Bateman, 174; E. Chadwick, C.B., 176; S. C. Homersham, 179; F. J. Bramwell, 186. Norwich, 170. Southampton: J. Lemon, 171. Cambridge: J. F. Bateman, 173. Newcastle, 173. London: R. Rawlinson, C.B., 188.

— Water-hose for dock service. T. Duncan, xii. 487.

**WATER SUPPLY—INTERMITTENT SERVICE *versus* CONSTANT SERVICE :—**

Glasgow. D. Mackain, xii. 504.

“Liverpool, systems of constant and intermittent water supply, and the prevention of waste, with special reference to the restoration of constant service in.” G. F. Deacon, xlii. 129. (3 plates.)—Discussion; G. F. Deacon, xlii. 169, 196, 209; T. H. G. Berrey, 169, 176; J. Lemon, 171; J. F. Bateman, 172; S. C. Homersham, 176; Sir J. Coode, 179; F. J. Bramwell, 181; R. Rawlinson, C.B., 188; J. Hanvey, 192; Dr. W. Pole, 193; J. M. Gale, 204; J. N. Shoolbred, 207.

— Intermittent supply *versus* constant service. T. Duncan, xii. 497;—T. Hawksley, xxxi. 62; J. Lemon, 171; J. F. Bateman, 172, 175; F. J. Bramwell, 181; R. Rawlinson, C.B., 189; Dr. W. Pole, 193.

London. G. F. Deacon, lviii. 30.

Manchester. J. F. Bateman, xii. 503.

Wolverhampton. S. C. Homersham, xii. 503.

**WATER SUPPLY—WATER PER HEAD OF THE INHABITANTS PER DAY :—**

Supply per head of the inhabitants required for trading and commercial towns. J. F. Bateman, xii. 504; J. Gibbs, 504;—T. Hawksley, xviii. 386; H. Conybeare, 390; R. Rawlinson, 395;—S. C. Homersham, xlii. 177, 179; Sir J. Coode, 180.

Table showing water consumed in different places, xl. 218.

Edinburgh. J. M. Rendel, xii. 505.

Geelong. E. O. Moriarty, lvi. 159;—G. Gordon, lvii. 195.

Liverpool: T. Duncan, xii. 499;—G. F. Deacon, xlii. 137, 140, 144, 148, 156, 200, 202.

London. Sir J. Coode, xlii. 180; Dr. Pole, 196.



Water supply—water per head of the inhabitants per day—*continued*.

- Manchester: J. F. Bateman, xii. 503;—T. H. G. Berry, xlii. 169, 174.  
 Marseilles canal. G. Wilson, li. 223.  
 Melbourne. W. Faribairn, 401.  
 New York. T. Hawksley, xviii. 386.  
 Norwich. T. H. G. Berrey, xlii. 170, 194.  
 Paris. G. W. Hemans, xxv. 494; R. Rawlinson, C.B., 496.  
 Southampton: J. Lemon, xlii. 171. Cambridge: J. F. Bateman, xlii. 173;  
 Newcastle, 173; Glasgow, 174, Berlin: E. Chadwick, C.B., 176.

**WATER SUPPLY—WATERWORKS:—**

- Historical notice. Sir J. Rennie, v. 58; J. M. Rendel, xi. 159; J. Simpson, xiii. 198.  
 Aix. Water supply of the district of Aix. C. A. Oppermann, xvi. 300.  
 Aachen. The waterworks of Aix-la-Chapelle. J. Stübben, li. 381.  
 Baltimore. The Permanent Supply Waterworks of Baltimore, l. 226.  
 Bann river: supply of water-power. *See Reservoirs*, storage.  
 Beurath. Water-conduit from Beurath to Elberfeld. Hr. Schneider, liii. 322.  
 Bombay. "Description of the works recently executed for the water supply of Bombay, in the East Indies." H. Conybeare, xvii. 555. (2 plates.)—  
 Discussion: H. Conybeare, xvii. 569.  
 Boston, U.S. Water supply of Boston, U.S., lv. 385.  
 Bremen. E. Bötcher and H. Ohnesorge, xlvii. 346.  
 Bristol. J. Simpson, xiv. 218.  
 Chicago. Sir C. A. Hartley, xl. 210.  
 Dresden. Herr Salbach, xxxix. 383.  
 Dublin. "On the water supply of the City of Dublin." P. Neville, xxxviii. 1. (2 plates.)—Discussion: B. Hassard, xxxviii. 44, 49; C. H. Beloe, 44, 45; S. C. Homersham, 45; C. B. Vignoles, 45; G. J. Symons, 45; A. R. Binnie, 46; A. T. Simpson, 47; A. Fraser, 47; Dr. W. Pole, 47; R. Field, 48; Sir J. Coode, 49.  
 Esslingen waterworks, l. 227.  
 Fall River city. Water supply of Fall River, U.S., lv. 386.  
 Florence. New subterranean conduit for water in the city of Florence, lii. 376.  
 Frankfort. The waterworks of Frankfort on the Oder. F. Schmetner, xlvii. 349.  
 Geelong. "The Geelong water supply, Victoria, Australia." E. Dobson, lvi. 94. (2 plates.)—Discussion: *vide* J. Brady's Paper on Sandhurst water supply (*seq.*).  
 Glasgow. "On the supply of water to the city of Glasgow." D. Mackain, ii. (1843), 134. Reservoir, 139.  
 Hanover. The Waterworks at Hanover. H. Berg, l. 228.  
 Horsens. The waterworks of Horsens, liii. 319.  
 Leicester. Filter beds and pure-water tanks. T. Hawksley, xxvii. 19.  
 Lille. Water supply to manufacturing towns in the district of Lille. M. Menche de Loigne, liii. 321.  
 Liverpool. "Description of the Liverpool corporation waterworks." T. Duncan, xii. 460.—Discussion: S. C. Homersham, xii. 503, 504; J. F. Bateman, 503; J. Gibbs, 504; D. Mackain, 504; R. Stephenson, 504; J. M. Rendel, 505.

**Water supply—waterworks—continued.**

Liverpool. Regulations for supply of water, xlii. 164.

Madrid. Storage reservoir for the Madrid water supply. E. Boix, xli. 239.

Marseilles canal. G. Binnie, xiv. 193; W. Polc, 202; R. W. Mylne, 211.

Melbourne. "On the water supply to the city of Melbourne, South Australia; comprising a brief description of the Melbourne gravitation waterworks." M. B. Jackson, xviii. 363.—Discussion: T. Hawksley, xviii. 385, 397, 401; H. Conybeare, 388; C. Greaves, 391; R. Rawlinson, 391, 396; T. R. Crampton, 396; C. W. Siemens, 397; W. Fairbairn, 400; H. Maudslay, 401; J. F. Tone, 403; J. Locke, 403.

"Nágpúr waterworks; with observations on the minfall, the flow from the ground, and evaporation at Nágpúr; and on the fluctuation of rainfall in India and in other places." A. R. Binnie, xxxix. 1. (3 plates).—Discussion: J. F. Bateman, xxxix. 32; Major W. R. Johnson, 34; Dr. W. Pole, 35; R. Field, 37; Sir G. B. Airy, 38; G. Dines, 40; R. Aitken, 43; C. Greaves, 45; Lt.-Col. A. Strange, 46; T. Ormiston, 48; S. C. Homersham, 49; Sir G. Campbell, 50; Gen. F. Cotton, 51; G. J. Symons, 52; Capt. S. Brooke, R.E., 53; A. R. Binnie, 54; T. E. Harrison, 58; H. F. Blanford, 59.

New York, Croton waterworks. Sir C. A. Hartley, xl. 203.

Paisley. "On the water supply of the town of Paisley, Renfrewshire." A. Leslie, xxxi. 33. (2 plates).—Discussion: J. Glaisher, xxxi. 48, 52; G. J. Symons, 51; S. C. Homersham, 53, 59; T. Hawksley, 53, 60, 62; J. A. Longridge, 59; N. Beardmore, 59, 60; T. E. Harrison, 59.

Paris: waterworks. H. B. Hederstedt, xxiv. 270, 273.

—"On the water supply of the city of Paris." G. R. Burnell, xxv. 480, 506.—Discussion: G. W. Hemans, xxv. 494; C. B. Vignoles, 494; R. Rawlinson, C.B., 494; Rev. J. C. Clutterbuck, 496; J. Murray, 498; W. Atkinson, 499; J. F. Bateman, 500, 506; S. C. Homersham, 502; C. B. Lane, 505; F. Jenkin, 505; T. Hawksley, 506; G. R. Burnell, 506.

Potsdam waterworks. W. H. L. Green, lv. 383.

Puerto de Santa Maria: waterworks, liv. 305.

Quebec waterworks, lv. 387.

Rome. The improvement of the water supply and sewerage of Rome. A. Vescovoli, xl. 307.

Rouen. H. C. Fleeming Jenkin, xxv. 505.

St. Etienne waterworks. M. de Montgolfier, xli. 243.

St. Helen's. "The Whiston pumping station, St. Helen's, Lancashire." (S.) T. S. Stooke, xlix. 221. (1 plate.)

Salzburg waterworks, xlvi. 302.

Sandhurst. "The Sandhurst water supply, Victoria, Australia." J. Brady, lvi. 134.—Discussion on this and on E. Dobson's Paper on Geelong water supply (*ante*): W. Clark, lvi. 152; E. O. Moriarty, 158, 168; Prof. D. T. Ansted, 161, 168; S. C. Homersham, 164, 168; G. B. Bruce, 168; C. Hawksley, 170; W. H. Barlow, 170;—G. Gordon, lvii. 195; J. Brady, 196.

Trafalgar Square. "On the Government waterworks in Trafalgar Square." C. E. Amos, xix. 21.—Discussion: C. E. Amos, xix. 30, 51; Rev. J. C. Clutterbuck, 30, 37, 45; F. Braithwaite, 33, 37, 43; S. C. Homersham, 35, 45; G. W. Hemans, 37; Prof. Tennant, 37; P. Bruff, 38; J. W. Bazalgette, 42; C. May, 48; J. Hawkshaw, 48; R. Rawlinson, 49; J. Locke, 51.

Upsala waterworks. J. G. Richert, and Nydquist and Holm, xlvi. 306.

Water supply—waterworks—*continued*.

Vienna water supply. A. Aird, Aug. Fölsch, and Prof. R. von Grimbürg, xlv. 308.

— On the construction of the Vienna waterworks. C. Mihatsch lix. 343.  
See *Aqueducts; Reservoirs*.

## WATER-WHEELS:—

Historical notice. Sir J. Rennie, v. 52.

Common breast-wheels at Deanston, Perthshire, and Catrine works, Ayrshire. W. Fairbairn, viii. 57.

"Description of a water-wheel constructed by Mr. W. Fairbairn, M. Inst. C.E., and erected in Lombardy." S. B. Moody, iii. 66.—Discussion: B. Albano, iii. 67; R. Mallet, 67; J. Taylor, 68; J. Glynn, 68.

Disadvantages of close-bucketed wheels. W. Fairbairn, viii. 46, 47, 49.

Efficiency of water-wheels. Prof. Gordon, ii. (1842), 93.—R. Mallet ii. (1843), 60. Experimental results by Poncelet and Morin: G. Rennie, ii. (1843), 64;—B. Albano, iii. 67; R. Mallet, 67; J. Taylor, 68; J. Glynn, 68;—G. Rennie, viii. 60; J. Glynn, 61; T. Wicksteed, 62; C. L. A. De Bergue, 63.

"Experimental inquiry as to the co-efficient of labouring force in overshot water-wheels, whose diameter is equal to or exceeds the total descent due to the fall; and of water-wheels moving in circular channels." R. Mallet, ii. (1843), 60.

Governors for water-wheels. B. Albano, iii. 67.

"Improvements in water-wheels." J. Dodds, i. (1838), 4.

Overshot water-wheels employed in pumping water at Wheal Friendship lead and copper mines, near Tavistock, in July 1840. From data by A. Rouse. J. Taylor, ii. (1842), 97; iii. 68.

— at Wheal Betsy mines, ii. (1842), 98.

Penstock, self-acting or flushing machine. R. Salter, xvi. 43.

Poncelet's water-wheel, viii. 58; C. L. A. De Bergue, 63.

"Remarks on machines recipient of water power, more particularly the turbine of Fourneyron." Prof. Gordon, ii. (1842), 92.—Discussion: J. Taylor, ii. (1842), 96, 101; Mr. Jordan, 99; G. Rennie, 100; J. Farey, 102.

Scoop-wheels for fen drainage. W. Airy, xxxii. 7; Sir G. B. Airy, 56.

In Spain, J. L. Thomas, 57;—N. Beardmore, xxxiv. 182; E. Welsh, 185.

Speed of water-wheel at Cassano d'Adda, Lombardy. B. Albano, iii. 67.

Velocity of old English water-wheels. G. Rennie ii. (1843), 64.

Ventilated suspension water-wheel. W. Fairbairn, iii. 66; B. Albano, 67.

Water-wheels for stamping, in Cornwall. N. Beardmore, viii. 62.

— roller bearings for axles of. F. G. M. Stoney, lvii. 58.

"— with ventilated buckets." W. Fairbairn, viii. 45. (3 plates).—Discussion: G. Rennie, viii. 59; W. Fairbairn, 60, 62, 63; B. W. Croker, 63; J. Glynn, 61; N. Beardmore, 62; T. Wicksteed, 62; J. S. Russell, 63; C. L. A. De Bergue, 63.

## WATER-WHEELS—TURBINES:—

Fourneyron's turbine: Prof. Gordon, ii. (1842), 94; Mr. Jordan, 99; G. Rennie, 100; J. Taylor, 101. Efficiency: Prof. Gordon, 95; J. Farey, 102; viii. 60. Turbine at St. Blasieu, 61.

**Water-wheels—turbines—continued.**

- Girard turbine at St. Gothard tunnel. D. K. Clark, xlii. 240.  
 — on Prince Bismarck's estate at Varzin. E. Haenel, liii. 361.  
 Hydraulic motors of Switzerland. W. Weissenbach, xlv. 282.  
 New types of turbines and centrifugal pumps. M. Deceour, i. 234.  
 Swaine turbine, report on a test trial of, at Boott cotton mill (U.S.). J. B. Francis, xli. 334.  
 Theory and construction of turbines. Prof. C. Fink, lii. 382.  
 Trials of the Fontaine turbine, driven by tide-water. M. Willotte, liii. 364.  
 Turbines. J. C. B. Lehmann, lvii. 412.  
 — by Escher, Wyss, and Co., at St. Gothard tunnel. D. K. Clark, xlii. 239.  
 — with partial distribution. Prof. Richelmy, li. 350.  
 Water power of Trollhättan falls, utilisation of. C. A. Ångström, xlii. 274.  
 Water-wheels (pitrecini). A. Bonolis and F. Mazza, liv. 346.  
 Whitelaw's water-wheel, Domnarfvet ironworks. C. Wittenstrom, lvii. 389.

**WATERWORKS.** See *Water supply*, waterworks.

**WATERS**, thermal, electricity of. Prof. Thury and Dr. A. Minnich, xlii. 388.

**WAVES:—**

- Action of waves as affected by the form of the bottom. D. A. Stevenson, xlv. 7, 19; Sir J. Coode, 17.  
 Depth and excavating power of waves. Col. Sir H. D. Jones, ii. (1842), 125; Sir J. Robison, 128.—Maj.-Gen. Pasley, vii. 198; J. M. Rendel, 198; —J. S. Russell, viii. 202; xi. 212, 221.—J. Murray, xii. 551;—R. Mallet, xviii. 113; W. Parkes, 119;—Sir J. Hawkshaw, xlv. 123.  
 Different orders of waves: classification. J. S. Russell, vi. 136;—J. T. Harrison, vii. 330; viii. 312;—J. S. Russell, xi. 212; xiii. 54; xviii. 75; xix. 651, 660. Nomenclature, J. G. C. Curtis, xix. 659.  
 Excavating power of waves, south coast of Ireland. G. H. Kinahan, lviii. 281.  
 — Plymouth breakwater: J. Walker, i. (1841), 115. Eddystone light-house: J. Walker, i. (1841), 115.  
 Experiments on the action of waves upon sea-shores and artificial embankments. A. de Caligny, lvi. 330.  
 Force and action of waves. J. G. C. Curtis, vi. 127; J. S. Russell, 130, 133, 142; Sir J. Rennie, 130; G. P. Bidder, 131.—Earl of Lovelace, vii. 395; H. Swinburne, x. 267; J. Coode, xii. 544, 545. By D. Stevenson: J. Brunlees, xiv. 244; G. Herbert, xv. 1; R. Mallet, xviii. 112; W. Parkes, 119; G. Rennie, 136;—A. J. Robertson, 145. M. Scott, 152; —J. H. Muller, xxi. 489;—D. Miller, xxii. 430;—J. S. Russell, xxiii. 237; —C. B. Vignoles, xxiv. 168;—J. N. Douglass, xxxvii. 372;—T. Stevenson, xliii. 25; D. Stevenson, 39;—J. N. Douglass, xlv. 14; J. B. Redman, 16.  
 Force of waves: sea-walls near Edinburgh. W. J. M. Rankine, vii. 187.  
 Form and action of waves. M. Scott, xviii. 75.  
 Formation of waves. A. J. Robertson, xviii. 145.  
 — of a crest prevented by oil on the water. J. G. C. Curtis, xix. 661.  
 Ground swell or rollers. J. S. Russell, xix. 651. Ground swell, south coast of Ireland. G. H. Kinahan, lviii. 281.

**Waves—continued.**

Hawksley's formula for the height of waves, xx. 361.

Height of waves at Bishop Rock lighthouse. J. N. Douglass, xv. 8; xli. 14; D. Stevenson, xliii. 39.—J. A. Longridge, xli. 16; J. B. Redman, 16; F. J. Bramwell, 18.

Magnitude and velocity of waves at Sunderland. J. Murray, viii. 200.

Movements of waves. J. H. Muller, xxi. 470.

Velocity of propagation of waves. M. Laroche, xlvii. 363.

Waves of the open sea; magnitude and velocity. Dr. Scoresby, xiii. 84, 55;

A. Henderson, 34, 58;—J. N. Douglass, xv. 8. Cape of Good Hope:

C. W. Field, xvii. 338. Atlantic ocean: J. A. Longridge, xvii. 346;—

W. Shelford, liv. 29.

— (speed, height, velocity). C. Antoine, lvii. 372.

— caused by steamers in canals: character and action of, on the banks.

W. B. Clegram, xxvi. 4; W. Pole, 17; J. F. Ure, 21; M. Scott, 28;

J. F. Bateman, 28; R. Mallet, 30; J. Abernethy, 32; E. A. Cowper, 34.

— in rivers: J. F. Ure, xxvi. 20.

Wave-traps or wave-receivers at Sunderland. W. Brown, viii. 189;

J. Scott Russell, 198, 199, 202; J. Murray, 198; G. P. Bidder, 203;

J. T. Harrison, 205.

See *Tidal wave*.

**WAX:** mineral oil and wax (ozokerite) mining in Galicia. E. Windakiewicz, xlii. 343.

**WEAVING:—**

Description of Martin's improved "Jacquard machine." E. Laforest, xiii. 365.

Sizing of warps in weaving. E. Lembke, i. 289.

Unification of the numbers of spun threads. G. Roy, liii. 372.

Weaving shed. J. Smith (Deanston), ii. (1842), 143.

**WEIGHTS.** See *Measures*, weights, and money.

**WEIRS:—**

Influence of weirs on floods. T. Hawksley, xix. 540; G. W. Hemans, 540; G. P. Bidder, 544.

Principles of weirs. W. Cubitt, v. 348, 352.

Utility of weirs in the canalisation and improvement of rivers. N. Beardmore, xix. 535; J. G. C. Curtis, 535, 540; T. Hawksley, 539; E. L. Williams, 541.

Bann reservoirs, weirs at. J. F. Bateman, vii. 261, 271, 273.

India. Waste-weir, or calingulah, of irrigation tanks in India. A. Wilson, xxvii. 457.

— Anicut or weir in Seringham. J. G. C. Curtis Godsman, xxxv. 176; Col. Smith, 181.

— Anicuts or weirs for irrigation across rivers in. A. Wilson, xxvii. 459; T. Login, 476; Sir A. Cotton, 535.

— Waste-weir, Bombay waterworks. H. Conybeare, xvii. 561.

— Weir at Okhla, across the Jumna, xxxv. 160, 165, 166, 167, 168, 169, 170, 178, 180.

— Weir at Rājaghat, across the Ganges, xxxv. 159, 160, 165, 166, 167, 168, 169, 170, 179, 185.

**Weirs—continued.**

- India. Weirs, Madras presidency. Principles of the formation of weirs. J. G. C. Curtis Godsdan, xxxv. 177.
- Weirs in India, construction of, on wells. J. F. Bateman, xxxiv. 28.
- Moselle: G. B. W. Jackson, vii. 229. Movable weirs on the Moselle: J. Schlichting, xl. 304.
- Naburn lock, on the river Ouse, self-acting wasteboard at. H. Renton, i. (1840), 26.
- Severn, Lincomb weir, and other weirs across the river. E. L. Williams, v. 342 to 345.
- Weir across the, at the upper Lode, near Tewkesbury. E. L. Williams, xix. 531, 540; W. A. Brooks, 534; J. Murray, 534; N. Beardmore, 534. Section of the weir: E. L. Williams, 543; G. P. Bidder, 544.
- Spain. Weir on the Henares canal. G. Higgin, xxvii. 491.
- Dimensions of the principal weirs in. W. Atkinson, xxvii. 552.
- Thames, ancient weirs on the. Rev. J. C. Clutterbuck, xxii. 346.
- Trent, near Long Eaton, weir across the. W. Cubitt, v. 350.

**WELLS, WELL-SINKING, AND BORING:—**

- Historical notice. Sir J. Rennie, v. 60.
- Breweries. Effect of pumping on the water at Combe's and other breweries in London. F. Braithwaite, ix. 166.
- Well at Messrs. Combe and Delafield's brewery. C. E. Amos, xix. 27; F. Braithwaite, 34.
- "Description and drawing of an apparatus designed by Mr. Mitchell for boring wells." Mr. Mitchell, Jun., i. (1837) 18.
- Well at Reid's Brewery. F. Braithwaite, ii. (1842) 162, 164; ii. (1843), 58.
- Well at Messrs. Truman, Hanbury & Co.'s brewery, London. F. Braithwaite, i. (1843), 57; R. Davidson, 58;—C. E. Amos, xix. 26.
- "Description of the mode adopted for sinking a well at Messrs. Truman, Hanbury, Buxton, & Co.'s brewery." B. Davison, ii. (1842) 192; ii. (1843) 57.
- Dru's system of boring. G. R. Burnell, xxiii. 470.
- Fauvelle's (or Chinese) system of boring. G. R. Burnell, xxiii. 462; C. B. Vignoles, 473, 477.
- Gas wells in Pennsylvania. L. Smith, xvi. 355.
- "Granite, account of boring for water through." F. Holland, i. (1839) 44.
- Hydraulic boring with hollow rods and a continuous current of water (at Niederbardenberg). H. Pieler, xlv. 318. *Vide* also Hr. Köbrich, liii. 377.
- India, native wells in. Col. W. H. Greathead, C.B., xxxv. 148.
- Wells *versus* canals in. Gen. G. B. Tremeneere, xvii. 495, 497.
- "Infiltration of salt water into the springs of wells under London and Liverpool." F. Braithwaite, xiv. 507, 512.—Discussion: Rev. J. C. Clutterbuck, xiv. 510; J. Simpson, 512, 522; F. Braithwaite, 512, 519, 522; S. C. Homersham, 515, 522; D. Campbell, 518, 522; R. Stephenson, 521.
- Influence of pumping water at Whiston station, St. Helen's, on the neighbouring wells. T. S. Stooke, xlix. 227.
- Intermittent well, South Foreland lighthouse. J. N. Douglass, lvii. 88.
- Kind's system of boring. G. R. Burnell, xxiii. 460, 464, 467; C. B. Vignoles, 473; W. Mather, 476.

Wells, well-sinking and boring—*continued*.

- Large diameter *versus* small bore. F. Braithwaite, ii. (1843), 57; W. C. Mylne, 59; J. Taylor, 59; T. Clark, 59;—C. B. Vignoles, xxxiii. 474.
- London. Sinking of Hampstead Road well, for Hampstead waterworks: R. W. Mylne, (T) iii. 234. Report of J. Simpson, 241: R. W. Mylne, i. (1839), 60;—F. Braithwaite, ii. (1843), 58; W. C. Mylne, 59;—J. Simpson, iv. 249;—Rev. J. C. Clutterbuck, xiv. 68; F. Braithwaite, 74; P. H. Hakewill, 74. Stratification, 75; J. Prestwich, Jun., 89.
- “Some accounts of borings for water in London and its vicinity.” J. Donkin, (T.) i. 155.
- Wells in the metropolis, chart of. F. Braithwaite, v. 478; xix. 33.—Discussion: Dr. Buckland, v. 479.
- Well at Camden railway station: R. B. Dockray, viii. 171, 173, 176. Analysis of well water, viii. 171, 173, 181, &c.
- “Miser,” use of the, for sinking wells. W. C. Mylne (T.), iii. 237; J. Simpson, ii. (1842), 64; R. Davison, 192;—T. Clark, ii. (1843), 59; F. Braithwaite, 59; J. Farey, 59.
- Ordinary system of boring. G. R. Burnell, xxiii. 462, 467.
- “Procuring supplies of water for cities and towns, by boring.” Communicated by J. Seaward, (T.) i. 145.
- St. Louis Co. Well of Insane Asylum. G. C. Broadhead, xlii. 292.
- Sinking wells through bad strata by means of cast-iron cylinders. J. Simpson, ii. (1842), 64; R. Davison, 65; F. Braithwaite, 162; H. R. Palmer, 163;—F. Braithwaite, iv. 249; J. Simpson, 249.
- See *Boring* and boring apparatus; *Water*—analyses, &c.

## WELLS, ARTESIAN:—

- Boring artesian wells by water-jets. C. B. Vignoles, xx. 298.
- Boring of artesian wells by a water-jet (Denmark, &c.), xlv. 320.
- Colchester, artesian bore at. P. Bruff, xix. 38.
- France. Artesian wells. J. Prestwich, Jun., xiv. 79, 91;—G. R. Burnell, xxiii. 459.
- Artesian well at the Abbatoir of Grenelle, Paris. Sir J. Robison, ii. (1843), 140.—Discussion: W. Cubitt, V.P., ii. (1843), 141; J. Taylor, 141; J. S. Enys, 141; F. Braithwaite, 141.—J. Prestwich, Jun., xiv. 79.
- G. R. Burnell, xxiii. 459.
- Sinking an artesian well at Passy, by M. Kind; G. R. Burnell, xxiii. 460, 463, 467.
- Harwich, artesian bore at. P. Bruff, xix. 39.
- Hungary, an artesian well at Rank-Herlány in. B. Zsigmondy, xlvii. 357.
- Japanese method of boring artesian wells. W. F. Potter, lvi. 6.
- London, artesian wells in. J. Prestwich, Jun., xiv. 91; J. Simpson, 94.
- “Supply of water from artesian wells in the London basin, with an account of the sinking of the well at the reservoir of the New River Company, in the Hampstead Road.” R. W. Mylne, (T.) iii. 229.
- “Machinery employed in sinking artesian wells on the continent.” G. R. Burnell, xxiii. 459. (2 plates.)—Discussion: C. B. Vignoles, xxiii. 473, 477; S. C. Homersham, 474; W. Mather, 475, 477.
- Spain, artesian wells in, xlvii. 350.
- “Supply of water from artesian wells.” R. W. Mylne, i. (1839) 59.—Discussion: M. I. Brunel, i. (1839), 62; J. Simpson, 62.

**WHARF** : see *Quays*.

**WHEELS**, toothed :—

Form of teeth of wheels. G. W. Sutcliffe, lviii. 255, 259.

Involute teeth for elliptical cog-wheels. Prof. Kirsch, xli. 320.

“Method of setting out involute teeth of wheels so that any two wheels of the same or of different diameters will work truly together, whether the teeth bottom or only just touch each other.” E. Cowper, i. (1841) 60.

“Search for the optimum system of wheel teeth.” (S.) E. Sang, lvii. 248.

Spur fly-wheels in the United States. J. F. Radinger, lv. 404.

“Teeth of wheels.” R. Willis, (T.) ii. 89. R. Willis, i. (1838), 25, 29.

Toothed wheels: table of dimensions and horse power. G. W. Sutcliffe, lviii. 257, 258.

**WINCH**. See *Crab*, or *winch*.

**WIND** :—

Force of wind: J. Farey, v. 289;—C. Fox, x. 189. Red Sea: W. Parkes, xxiii. 9. Liverpool: W. Parkes, xxiii. 10.

Pressure of wind on buildings. Sir G. B. Airy, x. 177.

Maximum force of wind on a roof. W. J. McAlpine, lvii. 202.

Velocities of winds: table. C. Antoine, lvii. 374.

Winds, easterly and westerly, at Alderney: tables. L. F. Vernon-Harcourt, xxxvii. 80–83.

— at Devonport. J. Prestwich, xl. 71, 80.

**WINDING ENGINES**. See *Coal-mining*.

**WOOD**. See *Fuels*; *Timber*.

**WOOD-WORKING MACHINERY**:—

Historical notices. G. L. Molesworth, xvii. 17, 36; Mr. Vigers, 49.

American shaping-machine: G. L. Molesworth, xvii. 30. Machine for copying irregular forms, 30. Hughes's spoke-machine, 31. Oar-shaping machine, 33. Machine for rounding timber, by J. W. Wilson, 40. Jordan's wood-carving machine: G. L. Molesworth, xvii. 31, 50; T. B. Jordan, 40.

— wood-working machinery. G. L. Molesworth, xvii. 19, 50; S. Worsam, 45; L. D. Owen, 47; Mr. Vigers, 48.

Bending timber by steam-heat. Earl of Lovelace, viii. 282.

Blanchard's timber-bending machine. G. L. Molesworth, xvii. 36; Mr. Vigers, 49.

Cask-making machinery. G. L. Molesworth, xvii. 37; G. Green, 44.

“Conversion of wood by machinery.” G. L. Molesworth, xvii. 17. (1 plate.)

—Discussion: J. W. Wilson, xvii. 40; T. B. Jordan, 40; G. W. Hemans, 42; A. Ransome, 42; C. May, 43; G. Green, 44, 46; S. Worsam, 45; Mr. Holmes, 46; T. Dines, 47; L. D. Owen, 47; Mr. Vigers, 48; G. L. Molesworth, 49.

Machine for cutting chair-beds in railway sleepers: T. B. Jordan, xvii. 41.

Sir J. McNeil's machine: G. W. Hemans, 42.

— for school-slate frames. T. B. Jordan, xvii. 41.

New method of cutting wood (by means of a heated platinum wire), xlii. 316.



Wood-working machinery—*continued*.

Ordinary carpenter's plane. G. L. Molesworth, xvii. 26; T. Dines, 47; L. D. Owen, 48; Mr. Vigers, 49.

Planing machines: G. L. Molesworth, xvii. 26. Reciprocating machines, 27. Revolving-cutter machines, 27. Socket plane, 29, 33. Moulding machines, 30.

Planks. "An improved plank-frame for sawing deal planks of various thicknesses into any number of boards." B. Hick, i. (1841), 97.

Railway-key and trenail machines: compression of wood. G. L. Molesworth, xvii. 31; J. A. Ransome, 42; C. May, 43.

Saw. Band-saw. G. L. Molesworth, xvii. 24.

— Portable band-saw, driven by water-pressure, for cutting firewood. E. Matheson, xlix. 34.

— Circular saw. G. L. Molesworth, xvii. 22, 24; T. Dines, 47. Reciprocating saw, 21, 23.

— Cross-cut saws:—Pendulum circular saw for cross-cutting large balks, at Portsmouth dockyard: G. L. Molesworth, xvii. 24; McDowall's saw, 24; Ransome and May's pendulum-saw, 24; A. Ransome, 42; C. May, 43.

— Power required to work frame-saws. W. F. Exner and G. Lauböck, lvi. 375.

— Experiments to determine the best form of teeth for frame-saws. W. F. Exner and G. Lauböck, lvi. 374.

— for cutting out ship timber, by Mr. Hamilton, U.S. G. L. Molesworth, xvii. 25. By M. Normand, 26.

— Setting saw-teeth. G. L. Molesworth, xvii. 23.

— Form of saw-teeth. G. L. Molesworth, xvii. 23; Mr. Holmes, 46; G. Green, 46; L. D. Owen, 48; Mr. Vigers, 49.

Speed of revolving tools. G. L. Molesworth, xvii. 28, 50, 51; T. B. Jordan, 40; S. Worssam, 46; T. Dines, 47; Mr. Vigers, 49.

Spiral augers: G. L. Molesworth, xvii. 34. Mortising machines, 34. Dove-tail cutting-machine, 34.

Stationary cutters *versus* revolving cutters. L. D. Owen, xvii. 48; Mr. Vigers, 48.

Wood framing *versus* iron framing. G. L. Molesworth, xvii. 20, 51; S. Worssam, 45; Mr. Vigers, 48.

WOOLLEN FACTORY IN TURKEY. W. Fairbairn, ii. (1843) 125.

WORKS (Public). See *Public Works*.

WORMS, marine (*teredo navalis*). J. Paton, ix. 27-34; Dr. Buckland, 43, 47; W. Newton, 45; L. Reeve, 49.

WROUGHT-IRON. See *Iron, wrought*.

## ZINC:—

Corrosion of zinc by water and saline solutions. H. Snyders, liv. 306.

Determination of zinc in its ores. Dr. Hampe, liii. 386.

Disincrustant in steam boilers. Prof. Lesueur, xlii. 329.

— Use of zinc as a disincrustant. M. Brossard de Corbigny, lii. 366.

Dressing of blende at Ämmeberg, in Sweden. M. Oppermann, i. 276.

Durability of zinc roofing. E. Clark, xxvii. 560, 578; J. N. Shoolbred, 568.

*Zinc—continued.*

Erection of zinc works, and the metallurgy of zinc. F. Laur, xli. 317.

Furnace for the distillation of zinc, combined with lead (zinkbleiöfen), at Tarnowitz, Upper Silesia. Dr. Wedding, xl. 340.

Joule's experiments on the force produced by the absolute oxidation of zinc in a battery. R. Hunt, xvi. 398; Prof. W. Thomson, 400.

Notes on zinc smelting. F. G. Thum, lviii. 407.

Present condition of the zinc industry of Upper Silesia. Max George, xlix. 369.

Production of zinc in blast furnaces. A. Lencauchez, li. 332.

Protection of iron by zinc. See *Iron*, wrought, preservation of.

Treatment of argentiferous zinc in North America. Dr. H. Wedding, xlviii. 360.

Zinc mines. On work done by divers in the Scharley zinc mines in Silesia. H. Freudenberg, xlv. 343.

Zinc ores, and the manufacture of zinc at Freiberg. L. Grand, xlii. 348, 357.

Zinc-ore deposit of Moresnet (Vieille-Montagne) and dressing machinery. O. Bilharz, xlvii. 394.

Zinc sheathing for vessels. See *Ships* and steam vessels—sheathing.

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